

January 31, 2020

Via Email and Fed Ex

Mr. Russell Fish
Office of Remediation 3LC20
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: SWMU 9 RFI Phase IV Supplemental Summary Tables and Figures
Honeywell International Inc.
Delaware Valley Works
Claymont, DE
Docket No. RCRA 03-2011-0252CA

Dear Mr. Fish:

On behalf of Honeywell International Inc. (Honeywell), Wood Environment & Infrastructure Solutions, Inc. (Wood), is submitting data summary tables and figures for the soil and groundwater sampling conducted from September through December 2019 at Solid Waste Management Unit 9 (SWMU 9) at the Honeywell Delaware Valley Works (DVW) site in Claymont, Delaware (the Site) (**Figure 1**). The summary tables and figures are being submitted in accordance with the requirements of the July 2019 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Phase IV Supplemental Work Plan that was approved by the U.S. Environmental Protection Agency (USEPA) on August 1, 2019 and the updated project schedule that was approved by the USEPA on November 5, 2019.

Scope of Work

Soil Borings

Six soil borings (B1 through B4, MW123S, and MW124S) were advanced in the southeastern portion of the Site for the collection of soil samples, located between existing SWMU 9 well MW-15 and Sunoco well MW-560, approximately 50 feet west of the fenceline (see **Figure 2**). Based on field screening, up to three soil samples per boring were collected (0 to 1 feet below ground surface [bgs]; above the water table, which is at approximately 10 ft bgs; and below the water table) and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and pesticides.

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The borings were advanced using direct push technology (e.g., Geoprobe®) and samples were analyzed in accordance with the methodologies and Standard Operation Procedures (SOPs) included in previous USEPA-approved work plans for the Site, including:

- *RFI Work Plan Rev. 4*, dated June 2015 and approved by USEPA on July 7, 2015;
- September 2, 2015 letter to USEPA regarding a QAPP change and *Laboratory SOPs* submitted to USEPA via email on September 9, 2015; and
- *RCRA Facility Investigation Phase IV Work Plan*, dated February 2019 and approved by USEPA on March 11, 2019.

Borings were backfilled with cement grout from terminal depth to ground surface. Cuttings from the borings were placed at ground surface at each location.

TestAmerica (now Eurofins) conducted the analysis for pesticides. Eurofins conducted the analyses for VOCs, SVOCs, and metals. These are the same laboratories approved by the USEPA for the previous investigations.

Groundwater Monitoring Wells

Two sets of groundwater monitoring wells (one shallow well and one deep well per set) were installed approximately 50 feet west of the fenceline between SWMU 9 and Sunoco. One set of wells was installed opposite Sunoco well MW-559 and one set of wells was installed opposite Sunoco well MW-560 (**Figure 2**).

The shallow wells were screened similar to the Sunoco wells (5 to 15 ft bgs) and the deep wells were screened in the sand and gravel unit observed during the installation of soil borings/monitoring wells in 2018.

The monitoring wells were constructed of 2-inch diameter polyvinyl chloride (PVC) casing and screen and installed and sampled in accordance with the procedures included in previous USEPA-approved work plans for the Site, including:

- *RFI Work Plan Rev. 4*, dated June 2015 and approved by USEPA on July 7, 2015;
- September 2, 2015 letter to USEPA regarding a QAPP change and *Laboratory SOPs* submitted to USEPA via email on September 9, 2015; and
- *RCRA Facility Investigation Phase IV Work Plan*, dated February 2019 and approved by USEPA on March 11, 2019.

The screens for the deep wells were cased-off to the depth of the sand and gravel unit so that only the sand and gravel unit is monitored. The newly installed monitoring wells were surveyed by a licensed surveyor in the State of Delaware and tied into the existing site topographic datum. Cuttings produced during well construction were left at the well site on the ground surface. Well development water was discharged to ground surface.

Water level measurements were collected from the 10 existing SWMU 9 wells (MW-14 through MW-19, MW-122, SM9-MW1, SWMU9-MW1, and SWMU9-MW2), the four new

SWMU-9 monitoring wells (MW-123S, MW-124S, MW-123D, and MW-124D), the five adjacent Sunoco wells (MW-48 and MW-557 through MW-560), and the two staff gauges that were installed in Middle Creek in 2018 so that water level contour maps could be prepared (see **Figures 3a** and **3b**).

Eighteen of the 19 monitoring wells were sampled and analyzed for VOCs, SVOCs, dissolved metals, and pesticides in accordance with the procedures included in previous USEPA-approved work plans for the Site, including:

- *RFI Work Plan Rev. 4*, dated June 2015 and approved by USEPA on July 7, 2015;
- September 2, 2015 letter to USEPA regarding a QAPP change and *Laboratory SOPs* submitted to USEPA via email on September 9, 2015; and
- *RCRA Facility Investigation Phase IV Work Plan*, dated February 2019 and approved by USEPA on March 11, 2019.

Light nonaqueous phase liquid (LNAPL) was observed in Sunoco well MW-558; therefore, a groundwater sample was not collected from this well.

TestAmerica (now Eurofins) conducted the analysis for pesticides. Eurofins conducted the analyses for VOCs, SVOCs, and metals. These are the same laboratories approved by the USEPA for the previous investigations.

Results

The results will be evaluated in more detail as the RFI proceeds; general observations are discussed below.

Soil Analytical Results

Soil analytical results were compared to the 2019 USEPA Industrial Soil Screening Levels (ISSLs) and Risk-Based Soil Screening Levels (RSSLs) (with a dilution attenuation factor (DAF) of 20), assuming a target cancer risk (TR) of 1E-06 and a target hazard quotient (THQ) of 1.0. These are the screening level categories used for the adjacent General Chemical (now Chemtrade) property in the February 2016 *RFI Summary and Presumptive Remedy for Proposed Industrial Redevelopment Area*, which was approved by the EPA on March 21, 2016.

Several constituents exceed the RSSLs, but only the following exceed the ISSSLs.

- VOCs. There are no exceedances of the ISSSLs for VOCs.
- SVOCs. Benzo(a)pyrene in one sample (B4-14-16).
- Metals. Arsenic, lead, thallium, and mercury. Arsenic in all samples except for B3-0-1, B3-8-10, and 124S-10-12; lead in B1-14-16, B2-14-16, B3-14-16, B4-14-16, MW123S-14-16, and MW-124S-14-16; thallium in B3-14-16 (duplicate); B4-14-16 and MW123S-14-16; and mercury in B3-14-16, B4-14-16, and MW123S-14-16. Thallium and mercury concentrations above the ISSSLs were only detected in the 14

to 16-foot bgs intervals, below the water table. The highest arsenic and lead concentrations, e.g., greater than 1,000 milligrams per kilogram (mg/kg), were all in the 14 to 16-foot bgs intervals, below the water table.

- Pesticides. 4,4'-DDD in B1-6-8 and B1-14-16, 4,4'-DDE in B1-14-16, and 4,4'-DDT in B1-0-1.

The soil analytical results are shown in **Tables 2** through **5** and **Figures 4** through **7**.

Groundwater Analytical Results

The groundwater analytical results were compared to the 2019 USEPA Regional Screening Levels (RSLs), Tapwater and Maximum Contaminant Levels (MCLs), assuming a TR of 1E-06 and a THQ of 1.0. These are the screening level categories used for the adjacent General Chemical (now Chemtrade) property in the February 2016 *RFI Summary and Presumptive Remedy for Proposed Industrial Redevelopment Area*, which was approved by the EPA on March 21, 2016. Both the Tapwater and MCLs are drinking water standards; however, groundwater at SWMU 9 is not and never has been used as a source for drinking water and the presumptive remedy will include groundwater restrictions.

Several constituents exceed the Tapwater RSLs, but only the following constituents exceed MCLs:

- VOCs. Benzene in wells SWMU9-MW2, MW-15, MW-18, MW-123S, and Sunoco well MW-559; chlorobenzene and trichloroethene in well MW-15; and chlorobenzene in Sunoco well MW-559. The concentrations of benzene and chlorobenzene in Sunoco well MW-559 were significantly higher than those in the SMWU 9 monitoring wells.
- SVOCs. Benzo(a)pyrene in one well (SM9-MW1) and pentachlorophenol in one well (Sunoco well MW-557).
- Dissolved metals. Arsenic in all wells except for MW-17, MW-122, and Sunoco well MW-48; beryllium in wells SMWU9-MW2 and SM9-MW1; copper in Sunoco well MW-560; lead in wells SWMU9-MW2 and SM9-MW1, MW-19, MW-123S, and Sunoco wells MW-48, MW-559, and MW-560; mercury in Sunoco well MW-559; selenium well MW-124S; and thallium in wells SM9MW-1, MW-14, MW-15, MW-19, and Sunoco well MW-557. The concentrations of arsenic were significantly higher in wells MW-18 and MW-19 and Sunoco well MW-557 than those in other wells.
- Pesticides. Gamma-BHC (lindane) in wells MW-14, MW-19, and Sunoco wells MW-557 and MW-559.

The groundwater analytical results are shown in **Tables 6** through **9** and **Figures 8** through **11**.

Future Activities

These results will be evaluated in more detail in the Draft RFI Report, which will be submitted within approximately three months of receiving final laboratory data from sampling at the Main Plant, as detailed in the February 2019 RFI Phase IV Work Plan that was approved by the USEPA via email on March 12, 2019.

Deviations from the Work Plan

TestAmerica reported that the laboratory did not receive soil sample SBB4100319-0608. Eurofins was able to analyze this sample for pesticides, which is a deviation from the work plan since only TestAmerica was approved for pesticide analysis as per the Work Plan.

Attached to this letter is the certification by Honeywell as required by the Administrative Order on Consent, Docket No. RCRA 03-2011-0252CA. Please contact John Mihalich at 610-877-6020 if you require additional information.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.



John P. Mihalich, P.G.
Associate Geologist



Kevin J. McKeever, P.E., P.G.
Branch Manager/Senior Associate Engineer

Attachments: Tables 1 through 9
 Figures 1 through 11
 Attachment A. Soil Laboratory Analytical Results
 Attachment B. Groundwater Laboratory Analytical Results

cc: Steve Coladonato – Honeywell
 Nelson Johnson – Arnold & Porter
 Rus Davis – Honeywell
 Lawrence Matson– DNREC
 James Wentzel, P.E. – PADEP

CERTIFICATION

I certify that the information contained in or accompanying this Summary is true, accurate, and complete.

As to the identified portion of this Summary for which I cannot personally verify its accuracy, I certify under penalty of law that this Summary and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations.



Signature: _____

Name: Steve Coladonato

Title: Remediation Manager, Honeywell International Inc.

Table 1.
Water Level Summary
December 6, 2019
SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Well ID	Total Depth (ft bgs)	Screened Interval (ft bgs)	Depth to Water (ft btoc)	Product Thickness (ft)	Reference Elevation ^{(a)(b)} (ft msl)	Groundwater Elevation (ft msl)	Time
MW-14	16	6-16	13.86	NA	16.69	2.83	1604
MW-15	14	4-14	9.99	NA	14.12	4.13	1550
MW-16	14	4-14	7.94	NA	11.10	3.16	1453
MW-17	16	6-16	10.00	NA	13.60	3.60	1658
MW-18	30	20-30	14.06	NA	17.49	3.43	1628
MW-19	14	4-14	12.73	NA	16.22	3.49	1407
MW-122	24	14-24	13.50	NA	16.31	2.81	1432
MW-48	16	5-15	5.98	NA	10.04	4.06	1520
MW-557	16	5-15	7.22	NA	9.72	2.50	1528
MW-558*	16	5-15	12.00	1.25	12.72	1.80	1538
MW-559	16	5-15	10.18	NA	12.30	2.12	1551
MW-560	16	5-15	6.98	NA	8.95	1.97	1555
SWMU9-MW-1-2018	87	77-87	45.30	NA	47.84	2.54	1745
SWMU9-MW-2-2018	57	47-57	28.10	NA	30.98	2.88	1731
SM9-MW1	40	30-40	16.97	NA	21.54	4.57	1715
MW-123S	15	5-15	9.10	NA	12.95	3.85	1529
MW-123D	35	25-35	10.67	NA	12.73	2.06	1537
MW-124S	15	5/15	7.93	NA	11.32	3.39	1515
MW-124D	38	28-38	9.16	NA	11.16	2.00	1506
Lower stream gauge	NA	NA	4.97	NA	0.90	4.87	1620
Upper stream gauge	NA	NA	4.97	NA	-0.07	2.90	1610

Notes:

ft bgs = feet below ground surface.

ft btoc = feet below top of PVC casing.

ft msl = feet above mean sea level.

^(a) Reference Elevation for lower stream gauge was surveyed at the 2-foot mark.

^(b) Reference Elevation for upper stream gauge was surveyed at 1-foot mark.

NA = Not applicable.

* Corrected water elevation = water elevation + (product density x product thickness); density assumed to be 0.86.

Created By: BSC 12-10-19

Checked By: JPM 01-24-20

Table 2
Summary of Soil Analytical Results, VOCs, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Sample ID Sample Location Sample Date Sample Depth (ft)	Industrial Soil Screening Level (mg/kg) DAF20	Risk-based SSL (mg/kg) 0-1	SBB1100119-01 B1 10/1/2019	SBB1100119-68 B1 10/1/2019	SBB1100119-1416 B1 10/1/2019	SBB2100119-01 B2 10/1/2019	SBB2100119-0810 B2 10/1/2019	SBB2100119-1416 B2 10/1/2019	SBB3100319-01 B3 10/3/2019	SBB3100319-0810 B3 10/3/2019	SBB3100319-1416 B3 10/3/2019	SBB3100319-1416 (Dupe) FD100319 10/3/2019	SBB4100319-01 B4 10/3/2019	SBB4100319-0608 B4 10/3/2019	SBB4100319-1416 B4 10/3/2019
Volatile Organic Compounds (VOCs) (mg/kg)															
Acetone	670000	58	0.064	0.042	41 U	0.07	0.043	77 U	0.15	0.01 J	35 U	0.1	0.009 J	0.058	20 U
Benzene	5.1	0.0046	0.004 J	0.003 J	10 U	0.006 U	0.001 J	19 U	0.0008 J	0.007 U	8.8 U	0.015	0.006 U	0.006 U	5.1 U
Bromochloromethane	630	0.42	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Bromodichloromethane	1.3	0.00072	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Bromoform	86	0.0174	0.012 U	0.007 U	21 U	0.012 U	0.017 U	39 U	0.011 U	0.014 U	18 U	0.014 U	0.012 U	0.012 U	10 U
Bromomethane	30	0.038	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 UJ	0.007 UJ	8.8 U	0.007 UJ	0.006 UJ	0.006 UJ	5.1 U
2-Butanone	190000	24	0.006 J	0.006 J	21 U	0.008 J	0.006 J	39 U	0.011 J	0.014 U	18 U	0.014 U	0.012 U	0.007 J	10 U
Carbon Disulfide	3500	4.8	0.002 J	0.011	10 U	0.004 J	0.011	19 U	0.0009 J	0.001 J	8.8 U	0.002 J	0.006 U	0.001 J	5.1 U
Carbon Tetrachloride	2.9	0.0036	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Chlorobenzene	1300	1.06	0.015	0.065	1.7 J	0.004 J	0.005 J	19 U	0.005 U	0.008 J	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Chloroethane	57000	118	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 UJ	0.007 UJ	8.8 U	0.007 UJ	0.006 UJ	0.006 UJ	5.1 U
Chloroform	1.4	0.00122	0.003 J	0.0008 J	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Chloromethane	460	0.98	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 UJ	0.007 UJ	8.8 U	0.007 UJ	0.006 UJ	0.006 UJ	5.1 U
Cyclohexane	27000	260	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.51 E	0.006 U	0.004 J	5.1 U
1,2-Dibromo-3-chloropropane	0.06	0.000028	0.006 U	0.004 U	10 UJ	0.006 U	0.009 U	19 UJ	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Dibromochloromethane	39	0.0046	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,2-Dibromoethane	0.16	0.000042	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,2-Dichlorobenzene	9300	6	0.001 J	0.007	10 U	0.006 U	0.006 J	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,3-Dichlorobenzene	NS	NS	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,4-Dichlorobenzene	11	0.0092	0.0007 J	0.002 J	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
Dichlorodifluoromethane	370	6	0.006 U	0.004 U	10 UJ	0.006 U	0.009 U	19 UJ	0.005 UJ	0.007 UJ	8.8 UJ	0.007 UJ	0.006 UJ	0.006 UJ	5.1 UJ
1,1-Dichlorethane	16	0.0156	0.006 U	0.004 U	10 UJ	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,2-Dichlorethane	2	0.00096	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,1-Dichloroethene	1000	2	0.006 U	0.004 U	10 UJ	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
cis-1,2-Dichloroethene	2300	0.22	0.0007 J	0.01	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
trans-1,2-Dichloroethene	23000	2.2	0.006 U	0.002 J	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,2-Dichloropropane	11	0.0056	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
cis-1,3-Dichloropropene	NS	NS	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
trans-1,3-Dichloropropene	NS	NS	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
1,4-Dioxane	24	0.00188	0.31 U	0.18 U	520 U	0.3 U	0.43 U	960 U	0.27 U	0.34 U	440 U	0.35 U	0.29 U	0.31 U	250 U
Ethylbenzene	25	0.034	0.006 U	0.0007 J	10 U	0.006 U	0.008 J	19 U	0.005 U	0.007 U	8.8 U	0.058	0.006 U	0.006 U	5.1 U
Freon 113	28000	520	0.012 U	0.007 U	21 U	0.012 U	0.017 U	39 U	0.011 U	0.014 U	18 U	0.014 U	0.012 U	0.012 U	10 U
2-Hexanone	1300	0.176	0.012 U	0.007 U	21 U	0.012 U	0.017 U	39 U	0.011 U	0.014 U	18 U	0.014 U	0.012 U	0.012 U	10 U
Isopropylbenzene	9900	14.8	0.006 U	0.0005 J	10 U	0.006 U	0.002 J	19 U	0.005 U	0.007 U	8.8 U	0.069	0.006 U	0.0005 J	5.1 U
Methyl Acetate	1200000	82	0.006 U	0.039	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.046 J	5.1 U
Methyl Tertiary Butyl Ether	210	0.064	0.006 U	0.004 U	10 U	0.006 U	0.009 U	19 U	0.005 U	0.007 U	8.8 U	0.007 U	0.006 U	0.006 U	5.1 U
4-Methyl-2-pentanone	140000	28	0.012 U	0.007 U	21 U	0.012 U	0.017 U	39 U	0.011 U	0.014 U	18 U	0.014 U	0.012 U	0.012 U	10 U
Methylcyclohexane	NS	NS	0.006 U	0.007	10 U	0.006 J	0.019	5.4 J	0.0007 J	0.007 U	8.8 U				

Table 2
Summary of Soil Analytical Results, VOCs, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Sample ID Sample Location Sample Date Sample Depth (ft)	Industrial Soil Screening Level (mg/kg)	Risk-based SSL (mg/kg) DAF20	SBMW123S-01 MW123S 10/1/2019 0-1	SBMW123S-1012 MW123S 10/1/2019 10-12	SBMW123S-1416 MW123S 10/1/2019 14-16	SBMW123S-1416 (Dupe) FD100119 10/1/2019 14-16	SBMW124S-01 124S 9/30/2019 0-1	SBMW124S-1012 124S 9/30/2019 10-12	SBMW124S-1416 124S 9/30/2019 14-16
			Volatile Organic Compounds (VOCs) (mg/kg)						
Acetone	670000	58	0.064	0.11	62 U	16 U	0.09	0.008 J	19 U
Benzene	5.1	0.0046	0.007 U	0.021	15 U	4 U	0.0008 J	0.005 U	4.8 U
Bromochloromethane	630	0.42	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Bromodichloromethane	1.3	0.00072	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Bromoform	86	0.0174	0.014 U	0.009 U	31 U	8 U	0.009 U	0.01 U	9.5 U
Bromomethane	30	0.038	0.007 U	0.005 UJ	15 U	4 U	0.004 U	0.005 U	4.8 U
2-Butanone	190000	24	0.01 J	0.011	31 U	8 U	0.014	0.01 U	9.5 U
Carbon Disulfide	3500	4.8	0.001 J	0.006	15 U	4 U	0.008	0.005 U	4.8 U
Carbon Tetrachloride	2.9	0.0036	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Chlorobenzene	1300	1.06	0.007 U	0.016	15 U	4 U	0.004 U	0.004 J	4.8 U
Chloroethane	57000	118	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Chloroform	1.4	0.00122	0.007 U	0.005 U	15 U	4 U	0.001 J	0.005 U	4.8 U
Chloromethane	460	0.98	0.007 U	0.005 UJ	15 U	4 U	0.004 U	0.005 U	4.8 U
Cyclohexane	27000	260	0.007 U	0.002 J	15 U	4 U	0.004 U	0.005 U	4.8 U
1,2-Dibromo-3-chloropropane	0.06	0.0000028	0.007 U	0.005 U	15 UJ	4 U	0.004 U	0.005 U	4.8 U
Dibromochloromethane	39	0.0046	0.007 U	0.005 UJ	15 U	4 U	0.004 U	0.005 U	4.8 U
1,2-Dibromoethane	0.16	0.000042	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,2-Dichlorobenzene	9300	6	0.007 U	0.011	15 U	4 U	0.004 U	0.005 U	4.8 U
1,3-Dichlorobenzene	NS	NS	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,4-Dichlorobenzene	11	0.0092	0.007 U	0.008	15 U	4 U	0.004 U	0.005 U	4.8 U
Dichlorodifluoromethane	370	6	0.007 U	0.001 J	15 UJ	4 UJ	0.004 U	0.005 U	4.8 U
1,1-Dichloroethane	16	0.0156	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,2-Dichloroethane	2	0.00096	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,1-Dichloroethene	1000	2	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
cis-1,2-Dichloroethene	2300	0.22	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
trans-1,2-Dichloroethene	23000	2.2	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,2-Dichloropropane	11	0.0056	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
cis-1,3-Dichloropropene	NS	NS	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
trans-1,3-Dichloropropene	NS	NS	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,4-Dioxane	24	0.00188	0.35 U	0.24 U	770 U	200 U	0.22 U	0.24 U	240 U
Ethylbenzene	25	0.034	0.0009 J	0.0008 J	15 U	0.43 J	0.004 U	0.005 U	4.8 U
Freon 113	28000	520	0.014 U	0.009 U	31 U	8 U	0.009 U	0.01 U	9.5 U
2-Hexanone	1300	0.176	0.014 U	0.009 U	31 U	8 U	0.009 U	0.01 U	9.5 U
Isopropylbenzene	9900	14.8	0.0007 J	0.005 U	15 U	0.36 J	0.004 U	0.005 U	4.8 U
Methyl Acetate	1200000	82	0.006 J	0.005 U	15 U	1 J	0.004 U	0.005 U	4.8 U
Methyl Tertiary Butyl Ether	210	0.064	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
4-Methyl-2-pentanone	140000	28	0.014 U	0.009 U	31 U	8 U	0.009 U	0.01 U	9.5 U
Methylcyclohexane	NS	NS	0.037	0.004 J	15 U	3.6 J	0.004 U	0.005 U	2 J
Methylene Chloride	1000	0.058	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Styrene	35000	26	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,1,2,2-Tetrachloroethane	2.7	0.0006	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Tetrachloroethene	100	0.102	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Toluene	47000	15.2	0.001 J	0.002 J	15 U	0.59 J	0.0007 J	0.0006 J	4.8 U
1,2,3-Trichlorobenzene	930	0.42	0.014 U	0.009 U	31 U	8 U	0.009 U	0.01 U	9.5 U
1,2,4-Trichlorobenzene	110	0.068	0.014 U	0.009 U	31 UJ	8 U	0.009 U	0.01 U	9.5 UJ
1,1,1-Trichloroethane	36000	56	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
1,1,2-Trichloroethane	5	0.00178	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Trichloroethene	6	0.0036	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
Trichlorofluoromethane	350000	66	0.007 U	0.005 U	15 UJ	4 U	0.004 U	0.005 U	4.8 UJ
Vinyl Chloride	1.7	0.00013	0.007 U	0.005 U	15 U	4 U	0.004 U	0.005 U	4.8 U
m+p-Xylene	NS	NS	0.002 J	0.001 J	15 U	0.85 J	0.004 U	0.005 U	4.8 U
o-Xylene	2800	3.8	0.001 J	0.0006 J	15 U	0.39 J	0.004 U	0.005 U	4.8 U
Xylene (Total)	2500	3.8	0.003 J	0.002 J	31 U	1.2 J	0.009 U	0.01 U	9.5 U

Notes:

U = Indicates the analyte was analyzed for, but not detected.

UJ = Indicates the analyte was analyzed for but not detected with an estimated detection limit.

J = Result is less than the limit of quantitation (LOQ) or reporting limit (RL) but greater than or equal to the method detection level (MDL) or detection level (DL) and the concentration is an approximate value.

E = Concentration exceeds the calibration range.

mg/kg = Milligrams per kilogram.

NS = No standard.

Bold values indicate an exceedance of the Industrial Soil Screening Level (SSL) (USEPA, November 2019).*Shaded and Italicized values* indicate an exceedance of the Risk-Based SSL assuming a dilution attenuation factor (DAF) of 20 (USEPA, November 2019).

Table 3
Summary of Soil Analytical Results, SVOCs, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Sample ID Sample Location Sample Date Sample Depth (ft)	Industrial Soil Screening Level (mg/kg) DAF20	Risk-based SSL (mg/kg)	SBB1100119-01 B1 10/1/2019 0-1	SBB1100119-68 B1 10/1/2019 6-8	SBB1100119-1416 B1 10/1/2019 14-16	SBB2100119-01 B2 10/1/2019 0-1	SBB2100119-0810 B2 10/1/2019 8-10	SBB2100119-1416 B2 10/3/2019 14-16	SBB3100319-01 B3 10/3/2019 0-1	SBB3100319-0810 B3 10/3/2019 8-10	SBB3100319-1416 B3 10/3/2019 14-16	SBB3100319-1416 (Dupe) FD100319 10/3/2019 14-16	SBB4100319-01 B4 10/3/2019 0-1	SBB4100319-0608 B4 10/3/2019 6-8	SBB4100319-1416 B4 10/3/2019 14-16
			Semi-Volatile Organic Compounds (SVOCs) (mg/kg)												
Aceanaphthene	45000	110	0.18	0.11	0.14 U	0.099 U	0.039 J	1	0.092 U	0.021 U	0.12 J	0.14 U	0.019 U	0.098 U	0.16 U
Acenaphthylene	NS	NS	0.065 J	0.058 J	0.14 U	0.099 U	0.066 J	0.16 U	0.092 U	0.021 U	0.13 J	0.14 U	0.019 U	0.098 U	0.16 U
Acetophenone	120000	11.6	0.28 U	0.28 U	0.42 U	0.3 U	0.43 U	0.47 U	0.28 U	0.064 U	0.4 U	0.41 U	0.058 U	0.29 U	0.47 U
Anthracene	230000	1160	0.31	0.3	0.17	0.055 J	0.12 J	1.6	0.092 U	0.021 U	0.23	0.14 J	0.013 J	0.098 U	1.1
Atrazine	10	0.004	2.4 U	2.4 U	3.7 U	2.6 U	3.7 U	4 U	2.4 U	0.55 U	3.5 U	3.6 U	0.51 U	2.5 U	4.1 U
Benzaldehyde	820	0.082	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
Benzo(a)anthracene	21	0.22	0.93	1.2	0.2	0.16	0.16	1.5	0.092 U	0.011 J	0.34	0.21	0.022	0.065 J	1.7
Benzo(b)fluoranthene	2.1	0.58	0.82	0.97	0.21	0.15	0.16	2.1	0.053 J	0.021 U	0.21	0.095 J	0.021	0.087 J	2.7
Benzo(b)fluoranthene	21	6	1.3	1.5	0.27	0.26	0.19	1	0.049 J	0.012 J	0.34	0.13 J	0.028	0.074 J	1.2
Benzo(h,i)perylene	NS	NS	0.57	0.67	0.18	0.14	0.13 J	2.9	0.038 J	0.021 U	0.13 J	0.076 J	0.017 J	0.098 U	3.4
Benzo(k)fluoranthene	210	58	0.44	0.59	0.083 J	0.095 J	0.1 J	0.24	0.092 U	0.008 J	0.13 J	0.072 J	0.015 J	0.098 U	0.31
1,1'-Biphenyl	200	0.174	0.21 U	0.21 U	0.31 U	0.22 U	0.31 U	1.1	0.2 U	0.047 U	0.29 U	0.3 U	0.043 U	0.22 U	0.72
4-Bromophenyl-ether	NS	NS	0.28 U	0.28 U	0.42 U	0.3 U	0.43 U	0.47 U	0.28 U	0.064 U	0.4 U	0.41 U	0.058 U	0.29 U	0.47 U
Butylbenzylphthalate	1200	4.8	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
Di-n-butylphthalate	82000	46	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
Caprolactam	400000	50	0.93 U	0.93 U	0.31 U	0.22 U	0.31 U	0.34 U	0.2 U	0.047 U	0.29 U	0.3 U	0.043 U	0.22 U	0.34 U
Carbazole	NS	NS	0.17 J	0.11 J	0.31 U	0.22 U	0.31 U	0.34 U	0.2 U	0.047 U	0.29 U	0.3 U	0.043 U	0.29 U	0.47 U
4-Chloro-3-methylphenol	82000	34	0.28 U	0.28 U	0.42 U	0.3 U	0.43 U	0.47 U	0.28 U	0.064 U	0.4 U	0.41 U	0.058 U	0.29 U	0.47 U
4-Chloroaniline	11	0.00032	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
bis(2-Chloroethoxy)methane	2500	0.26	0.21 U	0.21 U	0.31 U	0.22 U	0.31 U	0.34 U	0.2 U	0.047 U	0.29 U	0.3 U	0.043 U	0.22 U	0.34 U
bis(2-Chloroethyl)ether	1	0.000072	0.28 U	0.28 U	0.42 U	0.3 U	0.43 U	0.47 U	0.28 U	0.064 U	0.4 U	0.41 U	0.058 U	0.29 U	0.47 U
bis(2-Chloroisopropyl)ether	47000	5.2	0.24 U	0.24 U	0.37 U	0.26 U	0.37 U	0.4 U	0.24 U	0.055 U	0.35 U	0.36 U	0.051 U	0.25 U	0.41 U
2-Chloronaphthalene	60000	78	0.19 U	0.19 U	0.28 U	0.2 U	0.29 U	0.31 U	0.18 U	0.043 U	0.27 U	0.28 U	0.039 U	0.2 U	0.31 U
2-Chlorophenol	5800	1.78	0.21 U	0.21 U	0.31 U	0.22 U	0.31 U	0.34 U	0.2 U	0.047 U	0.29 U	0.3 U	0.043 U	0.22 U	0.34 U
4-Chlorophenyl-ether	NS	NS	0.24 U	0.24 U	0.37 U	0.26 U	0.37 U	0.4 U	0.24 U	0.055 U	0.35 U	0.36 U	0.051 U	0.25 U	0.41 U
Chrysene	2100	180	0.96	1.4	0.32	0.2	0.26	2.8	0.046 J	0.014 J	0.38	0.19	0.02	0.078 J	3.6
Dibenz(a,h)anthracene	2.1	1.92	0.17	0.13	0.14 U	0.099 U	0.14 U	0.16 U	0.092 U	0.021 U	0.13 U	0.14 U	0.019 U	0.098 U	0.53
Dibenzofuran	1000	3	0.1 J	0.21 U	0.31 U	0.22 U	0.31 U	1	0.2 U	0.047 U	0.29 U	0.3 U	0.043 U	0.22 U	0.99
3,3'-Dichlorobenzidine	5.1	0.0164	1.9 U	1.9 U	2.8 U	2 U	2.9 U	3.1 U	1.8 U	0.43 U	2.7 U	2.8 U	0.39 U	2 U	3.1 U
2,4-Dichlorophenol	2500	0.46	0.24 U	0.24 U	0.37 U	0.26 U	0.37 U	0.4 U	0.24 U	0.055 U	0.35 U	0.36 U	0.051 U	0.25 U	0.41 U
Diethylphthalate	660000	122	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
2,4-Dimethylphenol	16000	8.4	0.37 U	0.37 U	0.56 U	0.39 U	0.57 U	0.62 U	0.37 UJ	0.085 UJ	0.54 UJ	0.55 UJ	0.078 UJ	0.39 UJ	0.63 UJ
Dimethylphthalate	NS	NS	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
4,6-Dinitro-2-methylphenol	66	0.052	2.8 U	2.8 U	4.2 U	3 U	4.3 U	4.7 U	2.8 U	0.64 U	4 U	4.1 U	0.58 U	2.9 U	4.7 U
2,4-Dinitrophenol	1600	0.88	5.6 U	5.6 U	8.5 U	5.9 U	8.6 U	9.3 U	5.5 U	1.3 U	8 U	8.3 U	1.2 U	5.9 U	9.4 U
2,4-Dinitrotoluene	7.4	0.0064	0.93 U	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U	0.98 U	1.6 U
2,6-Dinitrotoluene	1.5	0.00134	0.28 U	0.28 U	0.42 U	0.3 U	0.43 U	0.47 U	0.28 U	0.064 U	0.4 U	0.41 U	0.058 U	0.29 U	0.47 U
bis(2-Ethylhexyl)phthalate	160	26	0.4 J	0.93 U	1.4 U	0.99 U	1.4 U	1.6 U	0.92 U	0.21 U	1.3 U	1.4 U	0.19 U		

Table 3
Summary of Soil Analytical Results, SVOCs, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Sample ID Sample Location Sample Date Sample Depth (ft)	Industrial Soil Screening Level (mg/kg) <i>DAF20</i>	Risk-based SSL (mg/kg)	SBMW123S-01 MW123S 10/1/2019 0-1	SBMW123S-1012 MW123S 10/1/2019 10-12	SBMW123S-1416 MW123S 10/1/2019 14-16	SBMW123S-1416 (Dupe) FD100119 10/1/2019 14-16	SBMW124S-01 124S 9/30/2019 0-1	SBMW124S-1012 124S 9/30/2019 10-12	SBMW124S-1416 124S 9/30/2019 14-16
Semi-Volatile Organic Compounds (SVOCs) (mg/kg)									
Aceanaphthene	45000	110	0.1 U	0.11 U	0.13 U	0.025 U	0.054 J	0.023 U	0.28
Acenaphthylene	NS	NS	0.1 U	0.11 U	0.24 J	0.025 UJ	0.12	0.023 U	0.35
Acetophenone	120000	11.6	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
Anthracene	230000	1160	0.039 J	0.11 J	0.51 J	0.13 J	0.21	0.023 U	0.68
Atrazine	10	0.004	2.6 U	2.8 U	3.3 U	0.66 U	2.5 U	0.59 U	0.82 U
Benzaldehyde	820	0.082	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Benz(a)anthracene	21	0.22	0.13	0.046 J	0.57 J	0.14 J	0.62	0.023 U	0.64
Benz(o)pyrene	2.1	0.58	0.15	0.053 J	0.36 J	0.16 J	0.59	0.023 U	0.57
Benz(b)fluoranthene	21	6	0.18	0.075 J	0.54 J	0.091 J	1.1	0.023 U	0.45
Benz(g,h,i)perylene	NS	NS	0.12	0.11	0.22	0.16	0.54	0.023 U	0.81
Benz(k)fluoranthene	210	58	0.076 J	0.11	0.2 J	0.024 J	0.3	0.023 U	0.11
1,1'-Biphenyl	200	0.174	0.22 U	0.24 U	0.23 J	0.097 J	0.21 U	0.05 U	0.34
4-Bromophenyl-phenylether	NS	NS	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
Butylbenzylphthalate	1200	4.8	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Di-n-butylphthalate	82000	46	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Caprolactam	400000	50	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Carbazole	NS	NS	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
4-Chloro-3-methylphenol	82000	34	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
4-Chloroaniline	11	0.00032	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
bis(2-Chloroethoxy)methane	2500	0.26	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
bis(2-Chloroethyl)ether	1	0.000072	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
bis(2-Chloroisopropyl)ether	47000	5.2	0.26 U	0.28 U	0.33 U	0.066 U	0.25 U	0.059 U	0.082 U
2-Chloronaphthalene	60000	78	0.2 U	0.22 U	0.25 U	0.051 U	0.19 U	0.045 U	0.063 U
2-Chlorophenol	5800	1.78	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
4-Chlorophenyl-phenylether	NS	NS	0.26 U	0.28 U	0.33 U	0.066 U	0.25 U	0.059 U	0.082 U
Chrysene	2100	180	0.15	0.056 J	0.78 J	0.22 J	0.64	0.023 U	1.1
Dibenz(a,h)anthracene	2.1	1.92	0.1 U	0.11 U	0.13 UJ	0.027 J	0.15	0.023 U	0.11
Dibenzofuran	1000	3	0.22 U	0.24 U	0.21 J	0.087 J	0.21 U	0.05 U	0.42
3,3'-Dichlorobenzidine	5.1	0.0164	2 U	2.2 U	2.5 U	0.51 U	1.9 U	0.45 U	0.63 U
2,4-Dichlorophenol	2500	0.46	0.26 U	0.28 U	0.33 U	0.066 U	0.25 U	0.059 U	0.52
Diethylphthalate	660000	122	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
2,4-Dimethylphenol	16000	8.4	0.4 U	0.43 U	0.51 U	0.1 U	0.38 U	0.091 U	0.13 U
Dimethylphthalate	NS	NS	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
4,6-Dinitro-2-methylphenol	66	0.052	3 U	3.2 U	3.8 U	0.76 U	2.9 U	0.68 U	0.94 U
2,4-Dinitrophenol	1600	0.88	6 U	6.5 U	7.6 U	1.5 U	5.7 U	1.4 U	1.9 U
2,4-Dinitrotoluene	7.4	0.0064	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
2,6-Dinitrotoluene	1.5	0.00134	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
bis(2-Ethylhexyl)phthalate	160	26	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Fluoranthene	30000	1780	0.18	0.071 J	1.3 J	0.15 J	1.2	0.023 U	1.3
Fluorene	30000	108	0.1 U	0.11 U	0.74 J	0.23 J	0.055 J	0.023 U	1.3
Hexachlorobenzene	0.96	0.0024	0.1 U	0.11 U	0.13 U	0.025 U	0.095 U	0.023 U	0.031 U
Hexachlorobutadiene	5.3	0.0054	0.46 U	0.5 U	0.58 UJ	0.12 U	0.44 U	0.1 U	0.14 UJ
Hexachlorocyclopentadiene	7.5	0.026	3 U	3.2 U	3.8 U	0.76 U	2.9 U	0.68 U	0.94 U
Hexachloroethane	8	0.004	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Indeno[1,2,3-cd]pyrene	21	19.6	0.097 J	0.032	0.15 J	0.042 J	0.43	0.023 U	0.2
Isophorone	2400	0.52	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
2-Methylnaphthalene	3000	3.8	0.021 J	0.22 U	2 J	0.91 J	0.022 J	0.045 U	1.9
2-Methylphenol	41000	15	0.4 U	0.43 U	0.51 U	0.1 U	0.38 U	0.091 U	0.13 U
4-Methylphenol	82000	30	0.3 U	0.32 U	0.43 J	0.076 UJ	0.29 U	0.068 U	0.79
Naphthalene	17	0.0108	0.1 U	0.11 U	0.85 J	0.15 J	0.095 U	0.023 U	0.57 J
2-Nitroaniline	8000	1.6	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
3-Nitroaniline	NS	NS	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
4-Nitroaniline	110	0.032	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Nitrobenzene	22	0.00184	0.4 U	0.43 U	0.51 U	0.1 U	0.38 U	0.091 U	0.13 U
2-Nitrophenol	NS	NS	0.34 U	0.37 U	0.43 U	0.087 U	0.32 U	0.077 U	0.11 U
4-Nitrophenol	NS	NS	3 U	3.2 U	3.8 U	0.76 U	2.9 U	0.68 U	0.94 U
N-Nitroso-di-n-propylamine	0.33	0.000162	0.3 U	0.32 U	0.38 U	0.076 U	0.29 U	0.068 U	0.094 U
N-Nitrosodiphenylamine	470	1.34	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
Di-n-octylphthalate	8200	1140	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Pentachlorophenol	4	0.00114	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
Phenanthrene	NS	NS	0.15	0.047 J	2.1 J	0.61 J	0.66	0.006 J	1.8
Phenol	250000	66	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
Pyrene	23000	260	0.21	0.057 J	1.2 J	0.37 J	0.91	0.023 U	2.5
1,2,4,5-Tetrachlorobenzene	350	0.158	0.22 U	0.24 U	0.28 U	0.056 U	0.21 U	0.05 U	0.069 U
2,3,4,6-Tetrachlorophenol	25000	3.6	1 U	1.1 U	1.3 U	0.25 U	0.95 U	0.23 U	0.31 U
2,4,5-Trichlorophenol									

Table 4
Summary of Soil Analytical Results, Metals, SWMU 9
RFI Report
Honeywell DVW
Claymont, DE

Sample ID	Industrial Soil	Risk-based SSL (mg/kg)	SBB1100119-01 B1 10/1/2019	SBB1100119-68 B1 10/1/2019	SBB1100119-1416 B1 10/1/2019	SBB2100119-01 B2 10/1/2019	SBB2100119-0810 B2 10/1/2019	SBB2100119-1416 B2 10/1/2019	SBB3100319-01 B3 10/3/2019	SBB3100319-0810 B3 10/3/2019	SBB3100319-1416 B3 10/3/2019	SBB3100319-1416 (Dupe) FD100319 10/3/2019	SBB4100319-01 B4 10/3/2019	SBB4100319-0608 B4 10/3/2019
Sample Location	Screening Level (mg/kg)	DAF20	0-1	6-8	14-16	0-1	8-10	14-16	0-1	8-10	14-16	14-16	0-1	6-8
Metals (mg/kg)														
Aluminum	1100000	600000	24700	13000	34100	58700	5450	27800 J	128000	477	42200	36700	7810	14200
Antimony	470	7	4.46 J	3.48 J	12.5 J	5.21 U	7.38 U	23.2 J-	3.79 U	27.6 U	202	211	5.58 U	5.77 U
Arsenic	3	0.03	168	146	1050	48	35.4	1630 J	2.27 U	16.5 U	7280	8060	24.6	7.48
Barium	220000	3200	485	179	1800	87.6	99.8	671 J	11	321	2260 J	4000 J	25.9	28
Beryllium	2300	380	0.319 J	0.316 J	0.958	0.324 J	0.419 J	0.865 J-	0.379 U	2.76 U	0.757	0.747	0.187 J	0.159 J
Cadmium	980	NS	0.417 J	1.67	7.29	0.132 J	0.583 J	6.24 J	0.284 J	2.76 U	5.94	5.18	0.223 J	0.218 J
Calcium	NS	NS	45800	35500	29300	156000	296000	47500 J	4950	224000	13800	15400	263000	183000
Chromium	NS	NS	54.4	42	122	61.8	33.1	155 J	143	8.27 U	73.6	75.7	8.36	16.4
Cobalt	350	5.4	23.8	67.9	32.6	24.3	10.1	32.3 J	1.76	1.72 J	8.13	5.33	2.58	2.11
Copper	47000	560	130	333	309	118	75.8	465 J	10.8	4.42 J	641	550	13.8	12.6
Iron	820000	7000	43700	62100	51700	24400	12200	64100 J	4620	1820	33700	29600	3100	4630
Lead	800	NS	430	487	1370	173	68.7	1950 J	18.2	71.1	18500	14200	29.7	27.5
Magnesium	NS	NS	8500	4940	4280	12000	11300	4780 J	656	24.4 J	2650	2280	129	204
Manganese	NS	NS	356	166	168	74.9	74	202 J	28.5	8.67	278	256	49.9	22.6
Nickel	22000	520	20.7	23.3	27.8	9.39	11.2	29.5 J	2.87	5.51 U	25.3	25.3	2.82	2.71
Potassium	NS	NS	12200	2280	3230	750	990	3720 J	139	81.3	1900	2010	128	208
Selenium	5800	10.4	13.7	11.1	72.1	10.3	8.4	116 J	3.79 U	27.6 U	300	227	2.98 J	4.49 J
Silver	5800	16	1.92	2.65	5.51	2.04	1.48 U	9.03 J-	0.758 U	5.51 U	10.1	8.08	1.12 U	1.15 U
Sodium	NS	NS	292	441	3610	305	6590	11900 J	75.8 U	551 U	11200	12500	155	397
Thallium	12	0.28	8.15	2.41 U	18.3 U	3.13 U	4.43 U	4.76 J-	2.27 U	16.5 U	4.21 UJ	14.8 J	3.35 U	3.46 U
Vanadium	5800	1720	91.1	38.7	84.3	44.5	13.7	65 J	67.1	5.51 U	78	73.7	4.89	10.4
Zinc	350000	7400	254	519	789	178	113	918 J	21.5	18.3	420	477	33.9	41.1
Mercury	46	0.66	4.73	1.51	13.5	1.05	0.739	29.4	0.21	0.449	152	140	2.48	2.19
Moisture	NS	NS	11.3	11	40.9	16.6	42.1	46.7	10.2	22.5	38.6	39.9	14.6	15.1

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mg/kg = Milligrams per kilogram.

NS = No standard.

exceedance of the Industrial Soil

Shaded and Italicized values indicate an exceedance of the Risk-Based SSL, assuming a dilution attenuation factor (DAF) of 20 (USEPA, November 2019).

Table 4
Summary of Soil Analytical Results, Metals, SWMU 9
RFI Report
Honeywell DVW
Claymont, DE

Sample ID Sample Location Sample Date Sample Depth (ft)	Industrial Soil Screening Level (mg/kg)	Risk-based SSL (mg/kg) DAF20	SBB4100319-1416 B4 10/3/2019 14-16	SBMW123S-01 MW123S 10/1/2019 0-1	SBMW123S-1012 MW123S 10/1/2019 10-12	SBMW123S-1416 MW123S 10/1/2019 14-16	SBMW123S-1416 (Dupe) FD100119 10/1/2019 14-16	SBMW124S-01 124S 9/30/2019 0-1	SBMW124S-1012 124S 9/30/2019 10-12	SBMW124S-1416 124S 9/30/2019 14-16
Metals (mg/kg)										
Aluminum	1100000	600000	29800 J	29600	14300	38500 J	13100 J	12300	270	27800
Antimony	470	7	<i>60 J</i>	3.62 J	3.46 J	<i>126 J</i>	<i>11.5 J</i>	4.85 U	6.23 U	<i>12.2</i>
Arsenic	3	0.03	<i>12200</i>	<i>46.6</i>	<i>14.4</i>	<i>9200 J</i>	<i>301 J</i>	<i>119</i>	3.74 U	<i>14100</i>
Barium	220000	3200	<i>6940 J</i>	55.4	175	2480 J	302 J	185	110	<i>5240</i>
Beryllium	2300	380	1.43	0.419 J	0.584 U	0.965 J	0.253 J	0.633	0.623 U	1.14
Cadmium	980	NS	13.4 J	0.333 J	0.584 U	4.7 J	1.39 J	0.418 J	0.896	8.11
Calcium	NS	NS	17900 J	203000	242000	37300 J	226000 J	18100	269000	19900
Chromium	NS	NS	126 J	41.7	15.3	79.8 J	35.6 J	30.8	5.6	122
Cobalt	350	5.4	<i>7.9</i>	<i>12.9</i>	<i>10.8</i>	<i>7.11 J</i>	<i>7.68</i>	<i>14.3</i>	0.653	<i>19.9</i>
Copper	47000	560	<i>686</i>	<i>72.8</i>	<i>37.4</i>	<i>681 J</i>	<i>119 J</i>	<i>104</i>	9.51	493
Iron	820000	7000	<i>40000</i>	<i>17600</i>	<i>18400</i>	24900	<i>20500</i>	<i>47000</i>	758	<i>34800</i>
Lead	800	NS	<i>4570</i>	126	64.7	<i>14000 J</i>	477 J	235	138	<i>2000</i>
Magnesium	NS	NS	5080 J	862	373	2800 J	1490 J	2440	4620	5370
Manganese	NS	NS	368 J	71.9	28.6	190 J	61.1 J	139	26	269
Nickel	22000	520	31.2	9.13	2.72	22.3 J	6.74 J	17.8	3.7	29.9
Potassium	NS	NS	3760	606	269	2000	2020	1730	187 U	3940
Selenium	5800	10.4	<i>48.7</i>	7.64	7.9	<i>208 J</i>	<i>27.2 J</i>	<i>25.7</i>	6.23 U	<i>99.6</i>
Silver	5800	16	4.54	1.26	0.955 J	9.81 J	2.3 J	1.6	1.25 U	4.74
Sodium	NS	NS	4470 J	233	1230	8830	7030	223	623 U	1100
Thallium	12	0.28	<i>14.7 J</i>	<i>1.18 J</i>	3.51 U	<i>51.3 J</i>	3.7 U	2.91 U	3.74 U	<i>2.05 J</i>
Vanadium	5800	1720	<i>72.9 J</i>	27.7	7.52	79.1 J	17.9 UJ	38.4	1.25 U	66.6
Zinc	350000	7400	1370 J	186	38.1	620 J	35.5 J	150	256	1120
Mercury	46	0.66	<i>72.7</i>	<i>0.846</i>	0.502	<i>106 J</i>	<i>4.69 J</i>	<i>1.23</i>	0.19	<i>16.8</i>
Moisture	NS	NS	47.6	17.6	23.6	35.3	34.7	14.1	27.7	47.2

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mg/kg = Milligrams per kilogram.

NS = No standard.

exceedance of the Industrial Soil

Shaded and Italicized values indicate an exceedance of the Risk-Based SSL, assuming a dilution attenuation factor (DAF) of 20 (USEPA, November 2019).

Table 5
Summary of Soil Analytical Results, Pesticides, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Sample ID	Industrial Soil Screening Level (mg/kg)	Risk-based SSL (mg/kg)	SBB1100119-01 B1 10/1/2019 0-1	SBB1100119-68 B1 10/1/2019 6-8	SBB1100119-1416 B1 10/1/2019 14-16	SBB2100119-01 B2 10/1/2019 0-1	SBB2100119-0810 B2 10/1/2019 8-10	SBB2100119-1416 B2 10/1/2019 14-16	SBB3100319-01 B3 10/3/2019 0-1	SBB3100319-0810 B3 10/3/2019 8-10	SBB3100319-1416 B3 10/3/2019 14-16	SBB3100319-1416 (Dupe) FD100319 10/3/2019 14-16	SBB4100319-01 B4 10/3/2019 0-1	SBB4100319-0608 B4 10/3/2019 6-8
Pesticides (mg/kg)														
Aldrin	0.18	0.003	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.038 U D2
alpha-BHC	0.36	0.00084	0.069	0.026	0.0064 UJ	0.008 J	0.0025 J	0.0071 J-	0.00073 U	0.0081	0.0056 U	0.0056 U	0.0021	0.038 D1
beta-BHC	1.3	0.003	0.08	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.045 U D2
delta-BHC	NS	NS	0.021	0.0064	0.0064 UJ	0.0039 U	0.013 J	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.045 U D2
gamma-BHC (Lindane)	2.5	0.0048	0.03 J	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.013 J D2
cis-Chlordane	NS	NS	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.038 U D1
trans-Chlordane	NS	NS	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.038 U D2
4,4'-DDD	9.6	0.15	7.8 J	10 J	20 J-	1.6 J	2.1 J	4.7 J	0.047	0.61	0.2 J	0.24 J	0.047	0.55 D1
4,4'-DDE	9.3	0.2	2	2.4	18 J-	1.3	1	1.5	0.037	0.077 J	0.17 J	0.44	0.055	0.57 D2
4,4'-DDT	8.5	1.54	14	5.1	0.047 J-	3.3	1.5	0.95	0.067	1	0.0056 U	0.0056 U	0.025	0.54 D1
Dieldrin	0.14	0.00142	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.077 U D2
Endosulfan I	NS	NS	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.038 U D2
Endosulfan II	NS	NS	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.1 U D2
Endosulfan sulfate	4900	42	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.077 U D2
Endrin	250	1.84	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.077 U D2
Endrin aldehyde	NS	NS	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.077 U D1
Endrin ketone	NS	NS	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.091 U D1
Heptachlor	0.63	0.0024	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.038 U D1
Heptachlor epoxide	0.33	0.00056	0.0042 U	0.0038 U	0.0064 UJ	0.0039 U	0.0045 U	0.0056 UF1	0.00073 U	0.00079 U	0.0056 U	0.0056 U	0.0008 U	0.038 U D2
Methoxychlor	4100	40	0.0082 U	0.0074 U	0.012 UJ	0.0076 U	0.0086 U	0.011 UJ	0.00014 U	0.0014 U	0.0015 U	0.011 U	0.0016 U	0.3 U D2
Toxaphene	2.1	0.22	0.11 U	0.097 U	0.16 UJ	0.1 U	0.11	0.14 U	0.019 U	0.02 U	0.14 U	0.14 U	0.02 U	1.5 U D2

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F1= Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recovery is outside acceptance limits.

D1= Indicates for dual analyses that the result is reported from column 1.

D2= Indicates for dual analyses that the result is reported from column 2.

mg/kg = Milligrams per kilogram.

NS = No standard.

Bold values indicate an exceedance of the Industrial Soil Screening Level (SSL) (USEPA, November 2019).*Shaded and Italicized values* indicate an exceedance of the Risk-Based SSL DAF20 (USEPA, November 2019).

Table 5
Summary of Soil Analytical Results, Pesticides, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Sample ID	Industrial Soil	Risk-based SSL (mg/kg)	SBB4100319-1416 B4 10/3/2019	SBMW123S-01 MW123S 10/1/2019	SBMW123S-1012 MW123S 10/1/2019	SBMW123S-1416 MW123S 10/1/2019	SBMW123S-1416 (Dupe) FD100119 10/1/2019	SBMW124S-01 124S 9/30/2019	SBMW124S-1012 124S 9/30/2019	SBMW124S-1416 124S 9/30/2019
Sample Location	Screening Level (mg/kg)	DAF20	14-16	0-1	10-12	14-16	14-16	0-1	10-12	14-16
Pesticides (mg/kg)										
Aldrin	0.18	0.003	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
alpha-BHC	0.36	0.00084	0.0061 UJ	0.0094 J	0.0055 J	0.08 J+	0.0034 J-	0.0042	0.0009 UJ	0.0051 U
beta-BHC	1.3	0.003	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.013	0.0009 UJ	0.0051 U
delta-BHC	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.0021	0.0009 UJ	0.0051 U
gamma-BHC (Lindane)	2.5	0.0048	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.0012 J	0.0009 UJ	0.0051 U
cis-Chlordane	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
trans-Chlordane	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.11 UJ	0.00081 U	0.0009 UJ	0.0051 U
4,4'-DDD	9.6	0.15	0.0061 UJ	0.37 J	0.46 J	6.4 J+	0.11 J-	0.29 J	0.0048 J	2.7 J+
4,4'-DDE	9.3	0.2	0.0061 UJ	0.36	0.13	2.8 J+	0.047 J-	0.19	0.018 J-	0.67 J+
4,4'-DDT	8.5	1.54	0.0061 UJ	0.66	0.16	0.17 J+	0.005 UJ	0.74 J	0.0093 J-	0.0051 UJ
Dieldrin	0.14	0.00142	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Endosulfan I	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Endosulfan II	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.011 J+	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Endosulfan sulfate	4900	42	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Endrin	250	1.84	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Endrin aldehyde	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Endrin ketone	NS	NS	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Heptachlor	0.63	0.0024	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Heptachlor epoxide	0.33	0.00056	0.0061 UJ	0.004 U	0.0044 U	0.0039 U	0.005 UJ	0.00081 U	0.0009 UJ	0.0051 U
Methoxychlor	4100	40	0.012 UJ	0.0078 U	0.0085 U	0.0076 U	0.0098 UJ	0.0016 UJ	0.0017 UJ	0.002 UJ
Toxaphene	2.1	0.22	0.15 UJ	0.1 U	0.11 U	0.099 U	0.13 UJ	0.02 U	0.023 UJ	0.026 U

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J-= Result is less than the limit of quantitation (LOQ) or reporting limit (RL) but greater than or equal to the method detection level (MDL) or detection level (DL) and the concentration is an approximate value with a high bias.

F1= Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recovery is outside acceptance limits.

D1= Indicates for dual analyses that the result is reported from column 1.

D2= Indicates for dual analyses that the result is reported from column 2.

mg/kg = Milligrams per kilogram.

NS = No standard.

Bold values indicate an exceedance of the Industrial Soil Screening Level (SSL) (USEPA, November 2019).*Shaded and Italicized values* indicate an exceedance of the Risk-Based SSL DAF20 (USEPA, November 2019).

Table 6
Summary of Groundwater Analytical Results, VOCs, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	SWMU9-MW1 12/4/2019	SMWU9-MW2 12/3/2019	SM9MW1 12/4/2019	MW14 12/5/2019	MW15 12/6/2019	MW16 12/5/2019	MW17 12/6/2019	MW18 12/6/2019	MW19 12/6/2019	MW22 12/5/2019	MW122 (Dupe) DUP02-09-120519 12/6/2019	MW123S MW123S-09-120619 12/6/2019	MW123D MW123D-09-120519 12/5/2019
Volatile Organic Compounds (ug/L)															
1,1,1-Trichloroethane	8000	200		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.08	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,1,2-Trichloroethane	0.28	5		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,1-Dichloroethane	2.8	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,1-Dichloroethylene	280	7		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,2,3-Trichlorobenzene	7	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,2,4-Trichlorobenzene	0.00033	0.2		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	6	0.1 J
1,2-Dibromo-3-chloropropane	300	600		0.5 U	1.2	0.5 U	5.6	0.1 J	0.06 J	5.3	0.09 J	0.5 U	0.5 U	0.1 J	0.5 U
1,2-Dichlorobenzene	0.17	5		0.5 U	0.4 J	0.5 U	0.06 J	0.5 J	0.5 U	0.07 J	0.5 U	0.3 J	0.4 J	5 U	0.5 U
1,2-Dichloropropane	0.85	5		0.5 U	0.3 J	0.5 U	4.4 J	0.5 U	5 U	0.5 U					
1,3-Dichlorobenzene	NS	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	5 U	0.5 U
1,4-Dichlorobenzene	0.48	75		0.5 U	0.2 J	0.5 U	5.8	0.1 J	0.09 J	4.2	0.1 J	0.5 U	0.5 U	5.1	0.08 J
1,4-Dioxane	0.46	NS		100 U	100 U	100 U	1000 U	100 U	100 U	100 U	100 U	100 U	100 U	1000 U	100 U
2-BUTanone	5600	NS		5 U	1.8 J	5 U	50 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U
2-Hexanone	38	NS		5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U
4-Methyl-2-pentanone	6300	NS		5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	5 U
Acetone	14000	NS		5 U	12	1.8 J	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U	10
Benzene	0.46	5		0.06 J	7	0.05 J	0.4 J	5.4	0.5 U	6.8	1.8	0.5 U	0.5 U	19	0.5 U
Bromochloromethane	83	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Bromodichloromethane	0.13	80		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Bromoform	3.3	80		1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Bromomethane	7.5	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Carbon Disulfide	810	NS		1 U	10	0.2 J	1 U	10 U	0.09 J	1 U	0.06 J	1 U	1 U	10 U	0.1 J
Carbon Tetrachloride	0.46	5		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Chlorobenzene	78	100		0.5 U	67	0.08 J	0.3 J	160	1.8	0.08 J	45	1.1	0.5 U	55	1.6
Chloroethane	21000	NS		0.5 UJ	0.5 UJ	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 UJ
Chloroform	0.22	80		0.5 U	0.1 J	0.5 U	0.8	5 U	0.5 U	0.6	0.4 J	0.5 J	0.5 U	5 U	0.5 U
Chloromethane	190	NS		0.5 UJ	0.5 UJ	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 UJ
cis-1,2-Dichloroethene	36	70		0.5 U	0.5 U	0.5 U	5.8 J	0.5 U	0.5 U	0.5 U	0.09 J	0.5 U	0.5 U	5 U	0.5 U
cis-1,3-Dichloropropene	NS	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Cyclohexane	13000	NS		0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.06 J	0.5 U	0.5 U	0.5 U	3.4 J	0.5 U
Dibromochloromethane	0.87	80		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Dichlorodifluoromethane	200	NS		0.5 U	0.5 U	0.5 UJ	5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	5 U	0.5 U
Ethylbenzene	1.5	700		0.07 J	1.1	0.5 U	0.5 U	5 U	0.5 U	0.08 J	0.5 U	0.5 U	0.5 U	1.3 J	0.5 U
Freon 113	10000	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Isopropylbenzene	450	NS		0.5 U	0.2 J	0.5 U	0.5 U	5 U	0.5 U	0.2 J	0.08 J	0.5 U	0.5 U	0.5 J	0.5 U
m+p-Xylene	190	NS		0.5 U	3.1	0.5 U	0.5 U	5 U	0.1 J	0.2 J	0.5 U	0.5 U	0.5 U	2 J	0.5 U
Methyl Acetate	20000	NS		1 U	1 UJ	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 UJ
Methyl Tertiary Butyl Ether	14	NS		0.5 U	0.5 U	0.05 J	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Methylcyclohexane	NS	NS		0.5 U	1.8	0.5 U	5 U	0.1 J	0.5 U	4 J	0.5 U				
Methylene Chloride	11	5		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
o-Xylene	190	NS		0.1 J	1.3	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7 J	0.5 U
Styrene	1200	100		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Tetrachloroethene	11	5		0.5 U	0.6	0.5 U	0.07 J	5 U	0.5 U	0.2 J	0.5 J	3	0.5 U	0.5 U	0.5 U
Toluene	1100	1000		0.5 U	1.6	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
trans-1,2-Dichloroethene	360	100		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
trans-1,3-Dichloropropene	NS	NS		0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Trichloroethene	0.49	5		0.5 U	0.1 J	0.5 U	0.4 J	14	0.5 U	0.2 J	0.1 J	0.8	0.07 J	0	

Table 6
Summary of Groundwater Analytical Results, VOCs, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	MW124S MW124S-09-120419 12/4/2019	MW124S (Dupe) DUP01-09-120419 12/4/2019	MW124D MW124D-09-120519 12/5/2019	MW48 MW48-SUN-120319 12/3/2019	MW557 MW557-SUN-120419 12/4/2019	MW559 MW559-SUN-120419 12/4/2019	MW560 MW560-SUN-120319 12/3/2019
Volatile Organic Compounds (ug/L)									
1,1,1-Trichloroethane	8000	200	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.08	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,1,2-Trichloroethane	0.28	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,1-Dichloroethane	2.8	NS	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	2.5 U	0.5 U
1,1-Dichloroethene	280	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,2,3-Trichlorobenzene	7	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	0.4 J	0.5 U
1,2,4-Trichlorobenzene	1.2	70	0.09 J	0.1 J	0.5 U	0.5 U	0.7	4.2	0.5 U
1,2-Dibromo-3-chloropropane	0.00033	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,2-Dichlorobenzene	300	600	0.2 J	0.2 J	0.5 U	0.5 U	1.1	18	0.1 J
1,2-Dichloroethane	0.17	5	0.1 J	0.09 J	0.5 U	0.5 U	0.06 J	2.5 U	0.08 J
1,2-Dichloropropane	0.85	5	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	2.5 U	0.5 U
1,3-Dichlorobenzene	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.09 J	1.5 J	0.5 U
1,4-Dichlorobenzene	0.48	75	0.1 J	0.2 J	0.5 U	0.5 U	1.8	21	0.2 J
1,4-Dioxane	0.46	NS	100 U	100 U	100 U	100 U	100 U	500 U	100 U
2-BUtanone	5600	NS	5 U	5 U	1.7 J	5 U	5 U	25 U	5 U
2-Hexanone	38	NS	5 U	5 U	5 U	5 U	5 U	25 U	5 U
4-Methyl-2-pentanone	6300	NS	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Acetone	14000	NS	5 U	5.6	8.7	5 U	2.2 J	6.2 J	5 U
Benzene	0.46	5	0.4 J	0.3 J	0.4 J	0.5 U	1.3	30	0.5 U
Bromochloromethane	83	NS	0.5 U	0.5 U	0.06 J	0.5 U	0.5 U	2.5 U	0.5 U
Bromodichloromethane	0.13	80	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Bromoform	3.3	80	1 U	1 U	1 U	1 U	1 U	5 U	1 U
Bromomethane	7.5	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Carbon Disulfide	810	NS	0.07 J	1 U	0.9 J	1 U	1 U	5 U	1 U
Carbon Tetrachloride	0.46	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Chlorobenzene	78	100	20	22	0.6	0.08 J	7.2	650	4.3
Chloroethane	21000	NS	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	2.5 UJ	0.5 UJ
Chloroform	0.22	80	0.2 J	0.2 J	1.7	0.1 J	0.4 J	2.5 U	0.9
Chloromethane	190	NS	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	2.5 UJ	0.5 UJ
cis-1,2-Dichloroethene	36	70	0.5	0.5	0.5	0.5 U	0.5 U	2.5 U	0.5 U
cis-1,3-Dichloropropene	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Cyclohexane	13000	NS	0.5 U	0.5 U	0.2 J	0.5 U	0.2 J	0.3 J	0.5 U
Dibromochloromethane	0.87	80	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Dichlorodifluoromethane	200	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Ethylbenzene	1.5	700	0.2 J	0.2 J	0.08 J	0.5 U	0.3 J	1.1 J	0.5 U
Freon 113	10000	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Isopropylbenzene	450	NS	0.2 J	0.2 J	0.4 J	0.5 U	0.2 J	0.4 J	0.5 U
m+p-Xylene	190	NS	0.7	0.6	0.7	0.5 U	0.2 J	0.6 J	0.5 U
Methyl Acetate	20000	NS	1 U	1 U	1 UJ	1 U	1 U	5 U	1 UJ
Methyl Tertiary Butyl Ether	14	NS	0.5 U	0.5 U	0.07 J	0.5 U	0.5 U	2.5 U	0.5 U
Methylecyclohexane	NS	NS	3.6	3.2	0.5	0.5 U	0.8	2.5 U	0.5 U
Methylene Chloride	11	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
o-Xylene	190	NS	0.5	0.5	0.5 J	0.4 J	0.5 U	2.5 U	0.5 U
Styrene	1200	100	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Tetrachloroethene	11	5	0.1 J	0.1 J	0.1 J	0.5 U	0.06 J	2.5 U	0.5 U
Toluene	1100	1000	0.3 J	0.3 J	0.1 J	0.5 U	0.2 J	0.8 J	0.5 U
trans-1,2-Dichloroethene	360	100	0.2 J	0.3 J	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
trans-1,3-Dichloropropene	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Trichloroethene	0.49	5	0.6	0.8	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Trichlorofluoromethane	5200	NS	0.5 U	0.06 J	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Vinyl Chloride	0.2	2	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Xylene (Total)	190	10000	1.2	1.1	1.1	1 U	0.4 J	5 U	1 U

Notes:

Tapwater and Maximum Contaminant Levels (MCLs) from U.S. Environmental Protection Agency (USEPA) 2019 Regional Screening Levels (RSLs).

Bold values indicate an exceedance of Tapwater screening levels.

Italicized shaded values indicate an exceedance of MCL screening levels.

U = Indicates the analyte was analyzed for but not detected.

UJ = Indicates the analyte was analyzed for but not detected with an estimated detection limit.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Level (MDL) and the concentration is an approximate value.

* = Laboratory Control Sample (LCS) or LCS Duplicate (LCSD) is outside acceptance limits.

H = Sample was prepared or analyzed beyond the specific holding time.

Sunoco well MW-558 contained light nonaqueous phase liquid (NAPL) on the day of sampling; therefore a sample was not collected.

NC = No criteria.

ug/L = Micrograms per liter.

Table 7
Summary of Groundwater Analytical Results, SVOCs, SWMU 9
RFI Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	MW48 MW48-SUN-120319 12/3/2019	MW557 MW557-SUN-120419 12/4/2019	MW559 MW559-SUN-120419 12/4/2019	MW560 MW560-SUN-120319 12/3/2019
Semi-Volatile Organic Compounds (ug/L)						
1,1'-Biphenyl	0.83	NS	10 U	10 U	11 U	10 U
1,2,4,5-Tetrachlorobenzene	1.7	NS	2 U	2 U	2 U	2 U
2,3,4,5-Tetrachlorophenol	240	NS	10 U	10 U	11 U	10 U
2,4,5-Trichlorophenol	1200	NS	2 U	2 U	2 U	2 U
2,4,6-Trichlorophenol	4.1	NS	2 U	2 U	0.7 J	2 U
2,4-Dichlorophenol	46	NS	2 U	2 U	2 U	2 U
2,4-Dimethylphenol	360	NS	10 U	10 U	11 U	10 U
2,4-Dinitrophenol	39	NS	30 U	30 R	32 R	30 U
2,4-Dinitrotoluene	0.24	NS	5 U	5 R	5 R	5 U
2,6-Dinitrotoluene	0.05	NS	2 U	2 R	2 R	2 U
2-Chloronaphthalene	750	NS	1 U	1 U	1 U	1 U
2-Chlorophenol	91	NS	2 U	2 U	3	2 U
2-Methylnaphthalene	36	NS	0.5 U	0.5 U	0.5 U	0.5 U
2-Methylphenol	930	NS	2 U	2 U	2 U	2 U
2-Nitroaniline	190	NS	7 U	7 R	7 R	7 U
2-Nitrophenol	NS	NS	10 U	10 R	11 R	10 U
3,3'-Dichlorobenzidine	0.13	NS	10 U	10 U	11 U	10 U
3-Nitroaniline	NS	NS	7 U	7 R	7 R	7 U
4,6-Dinitro-2-methylphenol	1.5	NS	21 U	21 R	22 R	21 U
4-Bromophenyl-phenylether	NS	NS	2 U	2 U	2 U	2 U
4-Chloro-3-methylphenol	1400	NS	2 U	2 U	2 U	2 U
4-Chloraniline	0.37	NS	10 U	10 U	11 U	10 U
4-Chlorophenyl-phenylether	NS	NS	2 U	2 U	2 U	2 U
4-Methylphenol	1900	NS	2 U	2 U	2 U	2 U
4-Nitroaniline	3.8	NS	3 U	3 R	3 R	3 U
Acenaphthene	530	NS	0.5 U	0.7	2	0.5 U
Acenaphthylene	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U
Acetophenone	1900	NS	10 U	10 U	11 U	10 U
Anthracene	1800	NS	0.5 U	0.2 J	0.7	0.5 U
Atrazine	0.3	3	5 U	5 U	5 U	5 U
Benzaldehyde	19	NS	10 U	10 U	11 U	10 U
Benz(a)anthracene	0.03	NS	0.5 U	0.5 U	0.3 J	0.5 U
Benz(a)pyrene	0.025	0.2	0.5 U	0.5 U	0.2 J	0.5 U
Benz(b)fluoranthene	0.25	NS	0.5 U	0.5 U	0.3 J	0.5 U
Benz(g,h,i)perylene	NS	NS	0.5 U	0.5 U	0.2 J	0.5 U
Benz(k)fluoranthene	2.5	NS	0.5 U	0.5 U	0.1 J	0.5 U
bis(2-Chloroethoxy)methane	59	NS	2 U	2 U	2 U	2 U
bis(2-Chloroethyl)ether	0.01	NS	2 U	2 U	2 U	2 U
bis(2-Chloroisopropyl)ether	710	NS	2 U	2 U	2 U	2 U
bis(2-Ethylhexyl)phthalate	5.6	6	11 U	11 U	12 U	11 U
Butylbenzylphthalate	16	NS	5 U	5 U	5 U	5 U
Caprolactam	9900	NS	11 UJ	11 R	12 R	11 UJ
Carbazole	NS	NS	2 U	0.6 J	0.8 J	2 U
Chrysene	25	NS	0.5 U	0.5 U	0.3 J	0.5 U
Dibenz(a,h)anthracene	0.03	NS	0.5 U	0.5 U	0.5 U	0.5 U
Dibenzofuran	7.9	NS	2 U	0.7 J	0.8 J	2 U
Diethylphthalate	15000	NS	5 U	5 U	5 U	5 U
Dimethylphthalate	NS	NS	5 U	5 UJ	5 UJ	5 U
Di-n-butylphthalate	900	NS	5 U	5 U	5 U	5 U
Di-n-octylphthalate	200	NS	11 U	11 U	12 U	11 U
Fluoranthene	800	NS	0.5 U	0.4 J	1	0.1 J
Fluorene	290	NS	0.5 U	1	2	0.5 U
Hexachlorobenzene	0.01	NS	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	0.14	NS	2 U	2 R	2 R	2 U
Hexachlorocyclopentadiene	0.41	50	11 UJ	11 UJ	12 UJ	11 UJ
Hexachloroethane	0.33	NS	5 U	5 R	5 R	5 U
Indeno(1,2,3-cd)pyrene	0.25	NS	0.5 U	0.5 U	0.2 J	0.5 U
Isophorone	78	NS	2 U	2 U	2 U	2 U
Naphthalene	0.17	NS	0.5 U	0.1 J	0.5 U	0.5 U
Nitrobenzene	0.14	NS	2 U	2 R	2 R	2 U
N-Nitroso-di-n-propylamine	0.01	NS	3 U	3 U	3 U	3 U
N-Nitrosodiphenylamine	12	NS	3 U	3 U	3 U	3 U
Pentachlorophenol	0.04	1	5 U	2 J	1 J	5 U
Phenanthrene	NS	NS	0.5 U	0.3 J	0.2 J	0.5 U
Phenol	5800	NS	2 U	2 U	2 U	2 U
Pyrene	120	NS	0.5 U	0.3 J	0.9	0.5 U

Notes:

Tapwater and Maximum Contaminant Levels (MCLs) from U.S. Environmental Protection Agency (USEPA) 2019 Regional Screening Levels (RSLs).

Bold values indicate an exceedance of Tapwater screening levels.

Italicized shaded values indicate an exceedance of MCL screening levels.

U = Indicates the analyte was analyzed for but not detected.

UJ = Indicates the analyte was analyzed for but not detected with an estimated detection limit.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Level (MDL) and the concentration is an approximate value.

R = Result is rejected and unusable.

* = Laboratory Control Sample (LCS) or LCS Duplicate (LCSD) is outside acceptance limits.

H = Sample was prepared or analyzed beyond the specific holding time.

Sunoco well MW-558 contained light nonaqueous phase liquid (NAPL) on the day of sampling; therefore a sample was not collected.

NC = No criterion.

ug/L = Micrograms per liter.

Table 8
Summary of Groundwater Analytical Results, Dissolved Metals, SWMU 9
RFI Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	SWMU9-MW1 SWMU9-MW1-09-120419 12/4/2019	SMWU9-MW2 SMWU9-MW2-09-120319 12/3/2019	SM9MW1 SM9MW1-09-120419 12/4/2019	MW14 MW14-09-120519 12/5/2019	MW15 MW15-09-120619 12/6/2019	MW16 MW16-09-120519 12/5/2019	MW17 MW17-09-120619 12/6/2019	MW18 MW18-09-120619 12/6/2019	MW19 MW19-09-120619 12/6/2019	MW122 MW122-09-120519 12/5/2019	MW122 (Dupe) DUP02-09-120519 12/5/2019	MW123S MW123S-09-120619 12/6/2019
Dissolved Metals (ug/L)														
Aluminum	20000	NS	322	62000	296000	50200	1970	200 U	481	2790	35200	10300	10200	521
Antimony	7.8	6	50 U	50 U	500 U	50 UJ	50 U	50 U	50 U					
Arsenic	0.05	10	33.6	71.8	409	8470	314	85.6	30 U	20300	41800	30 U	30 U	409
Barium	3800	2000	348	10.7	83.4	5 U	10.9	10.4	11.1	16.1	11.6	9.6	9.8	24.3
Beryllium	25	4	5 U	14.6	23.2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	NS	NS	1.2 J	1.5 J	50 U	5 U	5 U	5 U	4.5 J	9.1	5 U	5 U	5 U	5 U
Calcium	NS	NS	40400	436000	394000	444000	435000	593000	539000	542000	460000	532000	583000	447000
Chromium	NS	100	1.9 J	62.5	18 J	15 U	15 U	15 U						
Cobalt	6	NS	5 U	207	170	539	13.6	5 U	2.8 J	5 U	75.6	31.1	32.9	3.3 J
Copper	800	1300	20 U	20 U	100 U	498	20 U	20 U	20 U	20 U	29.3	20 U	20 U	20 U
Iron	14000	NS	108000	372000	2440000	971000	374000	12900	9860	400000	675000	93800	94700	267000
Lead	15	15	15 U	110	32.5	15 U	15	15 U	15 U	15 U	87.1	15 U	15 U	21.9
Magnesium	NS	NS	25700	407000	363000	187000	72400	44200	168000	51500	130000	317000	319000	102000
Manganese	NS	NS	2060	4760	64800	6150	2930	238	107	986	3450	604	613	2310
Mercury	0.63	2	0.2 U	0.2 U	0.11 J	0.21	0.2 U	0.2 U	0.2 U	0.2 U	0.16 J	0.2 U	0.2 U	0.23
Nickel	NS	NS	9.5 J	77.8	85.4	139	14.7	10 U	4 J	3 J	56.8	8.3 J	9.2 J	14.1
Potassium	NS	NS	10000	46100	25200	33500	39200	12000	24500	15500	33500	36100	34700	244000
Selenium	100	50	50 U	50 U	500 U	250 U	50 U	50 U	28.5 J	50 U	50 U	50 U	50 U	50 U
Silver	94	NS	5.7 J	10 U	100 U	111	10 U	10 U	10 U	35.5	59.2	10 U	10 U	200 U
Sodium	NS	NS	65500	200000	2840000	430000	877000	107000	98700	38500	157000	32600	31500	24300000
Thallium	0.2	2	30 U	30 U	59.6	40.9 J-	9.5 J	30 U	30 U	30 U	27.8 J	30 U	30 U	30 U
Vanadium	86	NS	5.9 J	70.9	102	58	19.9	10 U	10 U	10 U	38	2.2 J	3.2 J	23.5
Zinc	6000	NS	20 U	1090	2570	4440	29.8	12.6 J	161	836	634	83.2	76.9	20 U

Notes:

Tapwater and Maximum Contaminant Levels (MCLs) from U.S. Environmental Protection Agency (USEPA) 2019 Regional Screening Levels (RSLs).

Bold values indicate an exceedance of Tapwater screening levels.

Italicized shaded values indicate an exceedance of MCL screening levels.

U = Indicates the analyte was analyzed for but not detected.

UJ = Indicates the analyte was analyzed for but not detected with an estimated detection limit.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Level (MDL) and the concentration is an approximate value.

J= Result is less than the limit of quantitation (LOQ) or reporting limit (RL) but greater than or equal to the method detection level (MDL) or detection level (DL) and the concentration is an approximate value with a low bias.

* = Laboratory Control Sample (LCS) or LCS Duplicate (LCSD) is outside acceptance limits.

H = Sample was prepared or analyzed beyond the specific holding time.

Sunoco well MW-55a contained light nonaqueous phase liquid (NAPL) the day of sampling; therefore a sample was not collected.

NC = No criteria.

ug/L = Micrograms per liter.

Table 8
Summary of Groundwater Analytical Results, Dissolved Metals, SWMU 9
RFI Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	MW123D MW123D-09-120519 12/5/2019	MW124S MW124S-09-120419 12/4/2019	MW124S (Dupe) DUP01-09-120419 12/4/2019	MW124D MW124D-09-120519 12/5/2019	MW48 MW48-SUN-120319 12/3/2019	MW557 MW557-SUN-120419 12/4/2019	MW559 MW559-SUN-120419 12/4/2019	MW560 MW560-SUN-120319 12/3/2019
Dissolved Metals (ug/L)										
Aluminum	20000	NS	200 U	200 U	189 J	200 U	2370	9810	3510	9400
Antimony	7.8	6	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Arsenic	0.05	10	27.4 J	309	369	435	30 U	22000	167	985
Barium	3800	2000	149	11.1	16.2	144	10.6	5.8	19	14.6
Beryllium	25	4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	NS	NS	5 U	5 U	5 U	5 U	2.6 J	25 U	5 U	7.9
Calcium	NS	NS	349000	554000	544000	293000	45700	479000	568000	353000
Chromium	NS	100	15 U	15 U	15 U	15 U	15 U	15 U	3.2 J	3.9 J
Cobalt	6	NS	3.8 J	2.7 J	2.4 J	1.6 J	13.5	104	10.9	63.6
Copper	800	1300	20 U	20 U	20 U	20 U	216	100 U	114	3280
Iron	14000	NS	108000	8430	8880	31600	471	701000	101000	17000
Lead	15	15	15 U	15 U	15 U	15 U	19	10.3 J	248	26.5
Magnesium	NS	NS	169000	193000	201000	25500	6350	66000	40800	12100
Manganese	NS	NS	3170	274	286	395	111	4810	1700	297
Mercury	0.63	2	0.2 U	0.2 U	0.2 U	0.2 U	0.055 J	0.2 U	2.2	0.2 U
Nickel	NS	NS	10 U	10.2	13.2	3.4 J	13.1	10 U	8.7 J	34.1
Potassium	NS	NS	25000	15700	16100	22400	3910	27200	23500	3290
Selenium	100	50	50 U	72.9	107	50 U	50 U	50 U	24.6 J	18.1 J
Silver	94	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	NS	NS	526000	60200	63600	191000	10800	493000	245000	99800
Thallium	0.2	2	30 U	30 U	30 U	30 U	30 U	25.6 J	30 U	30 U
Vanadium	86	NS	10 U	10 U	10 U	10 U	10 U	13.2	10 U	10 U
Zinc	6000	NS	20 U	37.9	59	20 U	598	47.2	151	2120

Notes:

Tapwater and Maximum Contaminant Levels (MCLs) from U.S. Environmental Protection Agency (USEPA) 2019 Regional Screening Levels (RSLs).

Bold values indicate an exceedance of Tapwater screening levels.

Italicized shaded values indicate an exceedance of MCL screening levels.

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UJ = Indicates the analyte was analyzed for but not detected with an estimated detection limit.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Level (MDL) and the concentration is an approximate value.

J- = Result is less than the limit of quantitation (LOQ) or reporting limit (RL) but greater than or equal to the method detection level (MDL) or detection level (DL) and the concentration is an approximate value with a low bias.

* = Laboratory Control Sample (LCS) or LCS Duplicate (LCSD) is outside acceptance limits.

H = Sample was prepared or analyzed beyond the specific holding time.

Sunoco well MW-558 contained light nonaqueous phase liquid (NAPL) on the day of sampling; therefore a sample was not collected.

NC = No criteria.

ug/L = Micrograms per liter.

Table 9
Summary of Groundwater Analytical Results, Pesticides, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	SWMU9-MW1 SWMU9-MW1-09-120419 12/4/2019	SMWU9-MW2 SMWU9-MW2-09-120319 12/3/2019	SM9MW1 SM9MW1-09-120419 12/4/2019	MW14 MW14-09-120519 12/5/2019	MW15 MW15-09-120619 12/6/2019	MW16 MW16-09-120519 12/5/2019	MW17 MW17-09-120619 12/6/2019	MW18 MW18-09-120619 12/6/2019	MW19 MW19-09-120619 12/6/2019	MW122 MW122-09-120519 12/5/2019	MW122 (Dupe) DUP02-09-120519 12/5/2019	MW123S MW123S-09-120619 12/6/2019
Pesticides (ug/L)														
4,4'-DDD	0.032	NS	0.012 J-	0.030 J-	3.2 J-	0.030 J-	2.0 J-	0.62 J-	0.36 J-	0.011 UJ	0.46 J-	0.056 J-	0.052 J-	1.3 J-
4,4'-DDE	0.046	NS	0.010 UJ	0.010 UJ	0.072 J-	0.010 UJ	0.26 J-	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.0042 J-	0.011 UJ	0.18 J-
4,4'-DDT	0.23	NS	0.010 UJ	0.010 UJ	0.50 J-	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.26 J-
Aldrin	0.00092	NS	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
alpha-BHC	0.0072	NS	0.024 J-	0.13 J-	0.22 J-	16 J-	4.1 J-	0.20 J-	0.22 J-	75 J-	22 J-	0.55 J-	0.58 J-	0.20 J-
cis-Chlordane	NS	NS	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
beta-BHC	0.025	NS	0.0053 J-	0.029 J-	0.070 J-	0.81 J-	1.0 J-	0.091 J-	0.80 J-	10 J-	1.4 J-	0.06 J-	0.07 J-	0.21 J-
delta-BHC	NS	NS	0.0062 J-	0.041 J-	0.052 J-	0.94 J-	10 J-	0.53 J-	0.011 J-	20 J-	1.2 J-	0.024 J-	0.023 J-	0.25 J-
Dieldrin	0.0018	NS	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
Endosulfan I	NS	NS	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
Endosulfan II	NS	NS	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
Endosulfan sulfate	110	NS	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.0049 J-	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
Endrin	2.30	2.00	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.050 UJ
Endrin aldehyde	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.050 UJ
Endrin ketone	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.050 UJ
gamma-BHC (Lindane)	0.042	0.20	0.010 UJ	0.010 UJ	0.026 J-	2.8 J-	0.011 UJ	0.055 UJ	0.025 J-	0.011 UJ	2.3 J-	0.027 J-	0.031 J-	0.050 UJ
trans-Chlordane	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.050 UJ
Heptachlor	0.0014	0.4	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.050 UJ
Heptachlor epoxide	0.0014	0.2	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.055 UJ	0.011 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.050 UJ
Methoxychlor	37	40	0.021 UJ	0.021 UJ	0.022 UJ	0.021 UJ	0.021 UJ	0.021 UJ	0.11 UJ	0.023 UJ	0.022 UJ	0.021 UJ	0.022 UJ	0.10 UJ
Toxaphene	0.071	3	0.26 UJ	0.26 UJ	0.27 UJ	0.26 UJ	0.27 UJ	0.28 UJ	0.29 UJ	0.27 UJ	0.26 UJ	0.27 UJ	0.28 UJ	0.25 UJ

Notes:

Environmental Protection Agency (USEPA) 2019 Regional Screening Levels (RSLs).

Bold values indicate an exceedance of Tapwater screening levels.*Italicized shaded values indicate an exceedance of MCL screening levels.*

U = Indicates the analyte was analyzed for but not detected.

UJ = Indicates the analyte was analyzed for but not detected with an estimated detection limit.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Level (MDL) and the concentration is an approximate value.

J- = Result is less than the limit of quantitation (LOQ) or reporting limit (RL) but greater than or equal to the method detection level (MDL) or detection level (DL) and the concentration is an approximate value with a low bias.

* = Laboratory Control Sample (LCS) or LCS Duplicate (LCSD) is outside acceptance limits.

H = Sample was prepared or analyzed beyond the specific holding time.

(NAPL) on the day of sampling; therefore, a sample was not NC = No criteria.

ug/L = Micrograms per liter.

Table 9
Summary of Groundwater Analytical Results, Pesticides, SWMU 9
RCRA Facility Investigation Report
Honeywell DVW
Claymont, DE

Location Sample ID Sample Date	Tapwater (ug/L)	MCL (ug/L)	MW123D MW123D-09-120519 12/5/2019	MW124S MW124S-09-120419 12/4/2019	MW124S (Dupe) DUP01-09-120419 12/4/2019	MW124D MW124D-09-120519 12/5/2019	MW48 MW48-SUN-120319 12/3/2019	MW557 MW557-SUN-120419 12/4/2019	MW559 MW559-SUN-120419 12/4/2019	MW560 MW560-SUN-120319 12/3/2019
Pesticides (ug/L)										
4,4'-DDD	0.032	NS	0.048 J	0.55 J-	1.6 J-	0.13 J-	0.044 J-	5.1 J-	22 J-	0.88
4,4'-DDE	0.046	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.0054 J-	1.1 J-	5.4 J-	0.064
4,4'-DDT	0.23	NS	0.052 UJ	0.029 J-	0.011 J-	0.040 J-	0.015 J-	2.7 J-	15 J-	0.31
Aldrin	0.00092	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
alpha-BHC	0.0072	NS	0.045 J-	0.14 J-	0.10 J-	0.059 J-	0.22 J-	0.011 UJ	440 J-	5.7 J
cis-Chlordane	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
beta-BHC	0.025	NS	0.018 J	0.14 J-	0.14 J-	0.070 J-	0.13 J-	14 J-	45 J-	2.1 J
delta-BHC	NS	NS	0.035 J-	0.19 J-	0.20 J-	0.023 J-	0.031 J-	5.4 J-	140 J-	1.5 J
Dieldrin	0.0018	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Endosulfan I	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Endosulfan II	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Endosulfan sulfate	110	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Endrin	2.30	2.00	0.010 UJ	0.010 UJ	0.0098 J-	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Endrin aldehyde	NS	NS	0.052 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Endrin ketone	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
gamma-BHC (Lindane)	0.042	0.20	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.028 J-	5.8 J-	2.1 J-	0.18
trans-Chlordane	NS	NS	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Heptachlor	0.0014	0.4	0.052 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Heptachlor epoxide	0.0014	0.2	0.010 UJ	0.010 UJ	0.010 UJ	0.011 UJ	0.010 UJ	0.011 UJ	0.011 UJ	0.011 U
Methoxychlor	37	40	0.10 UJ	0.020 UJ	0.021 UJ	0.021 UJ	0.021 UJ	0.021 UJ	0.022 UJ	0.021 U
Toxaphene	0.071	3	0.26 UJ	0.26 UJ	0.26 UJ	0.27 UJ	0.26 UJ	0.26 UJ	0.27 UJ	0.26 U

Notes:

Environmental Protection Agency (USEPA) 2019 Regional Screening Levels (RSLs).

Bold values indicate an exceedance of Tapwater screening levels.*Italicized shaded values indicate an exceedance of MCL screening levels.*

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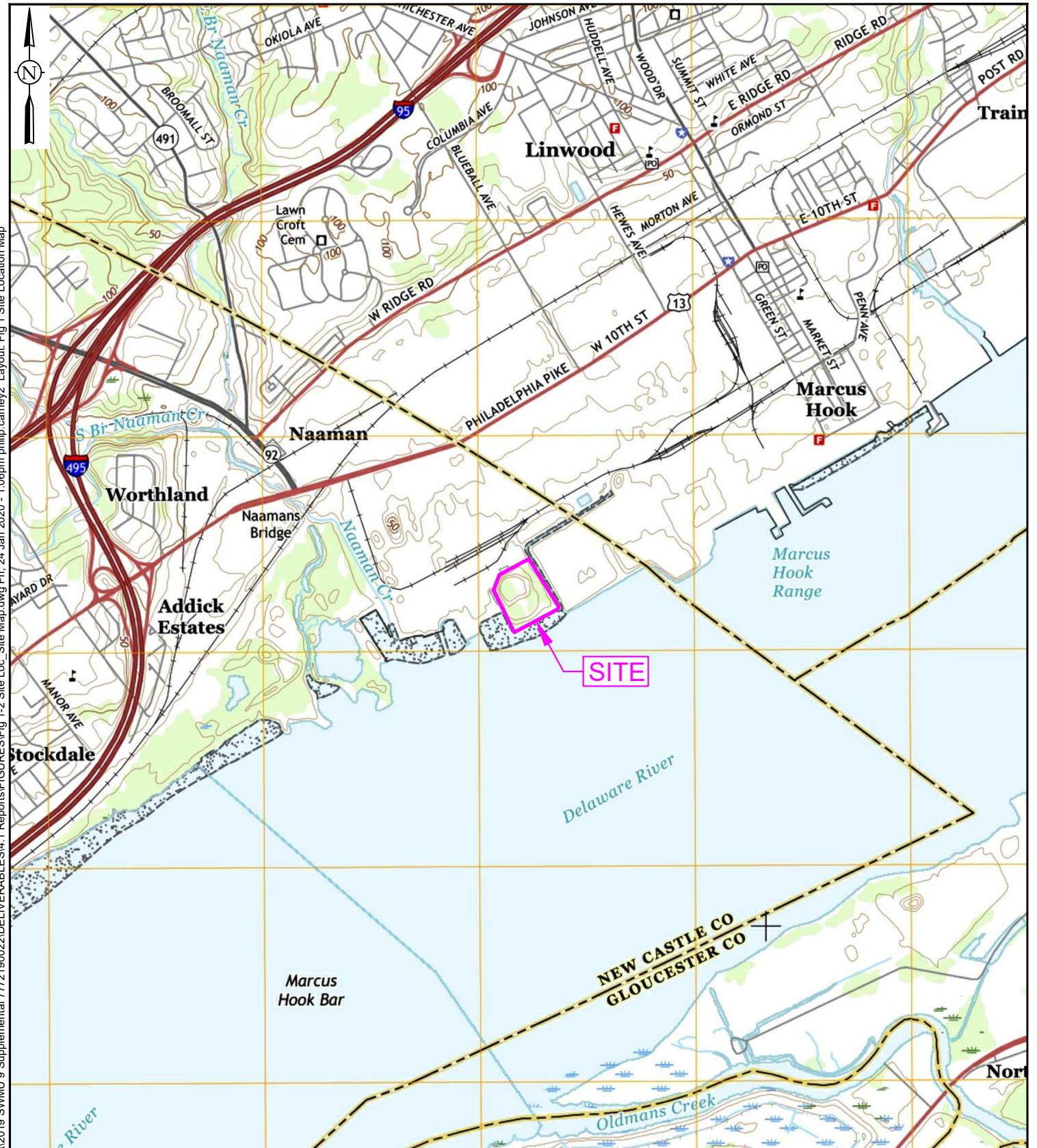
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(NAPL) on the day of sampling; therefore, a sample was not

NC = No criteria.

ug/L = Micrograms per liter.



LEGEND  APPROXIMATE SWMU 9 BOUNDARY SOURCE USGS QUAD "MARCUS HOOK, PA-DE-NJ", 2016.  0 1000' 2000' SCALE: 1" = 2,000'			 DELAWARE VALLEY WORKS CLAYMONT, DELAWARE	SWMU 9 RFI PHASE IV SUPPLEMENTAL WORK PLAN	PROJECT NO.: 7772190002
			PREPARED BY: PJC		
				CHECKED BY: JP	
				REVISION NO.: 0	
				FIGURE NO.: 1	



SOURCE
ESRI WORLD IMAGERY.

LEGEND

- APPROXIMATE SWMU 9 BOUNDARY
- EXISTING MONITORING WELL LOCATION
- EXISTING SOIL BORING LOCATION

wood.
751 Arbor Way, Suite 180 Tel. 610-828-8100
Blue Bell, PA 19422 www.woodplc.com

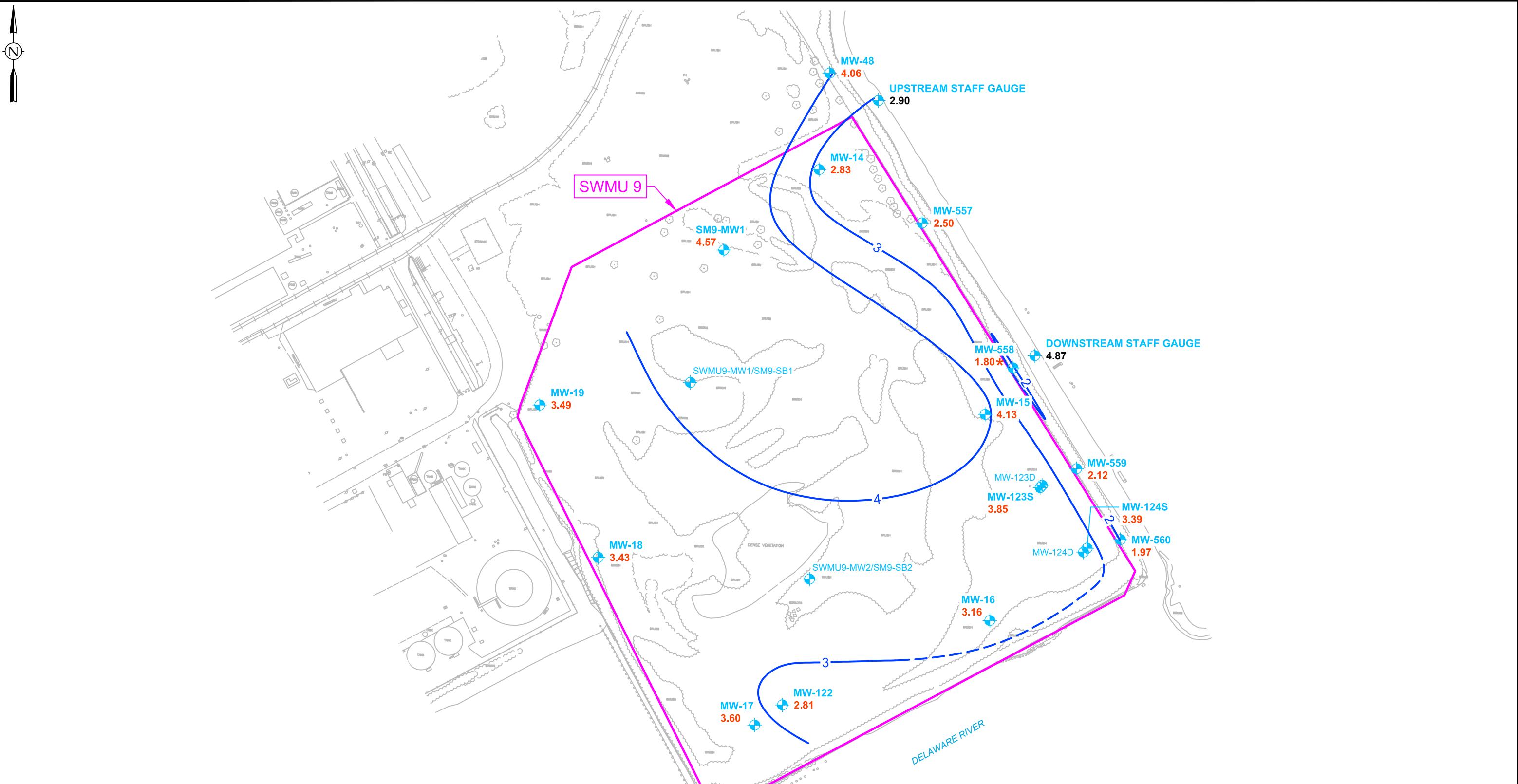
PROJECTION / DATUM: DE83F	PREPARED BY: PJC
0 75' 150'	CHECKED BY: JPM
SCALE: 1" = 150'	

Honeywell
CLIENT
DELAWARE VALLEY WORKS
CLAYMONT, DELAWARE

PROJECT
**SWMU 9 RFI PHASE IV
SUPPLEMENTAL WORK PLAN**

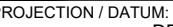
PROJECT NO.:
7772190022
REVISION NO.:
0
DATE:
JANUARY 2020

FIGURE NO.:
2



LEGEND

-  APPROXIMATE SWMU 9 BOUNDARY
 -  MEASURING POINT AND WATER LEVEL ELEVATION
 -  LINE OF EQUAL ELEVATION
(DASHED WHERE SUSPECT)
 -  GROUNDWATER ELEVATION (FT AMSL)
2.81
 -  STAFF GAUGE MEASUREMENT NOT INCLUDED IN CONTOURS
4.87
 -  CORRECTED WATER ELEVATION; WELL CONTAINS FREE PRODUCT

wood.		C
751 Arbor Way, Suite 180 Blue Bell, PA 19422		Tel. 610-828-8100 www.woodplc.com
PROJECTION / DATUM: DE83F		PREPARED BY: PJC
0	75'	150'
		CHECKED BY: JPM
SCALE: 1" = 150'		
REVIEWED BY:		

CLIENT
Honeywell
DELAWARE VALLEY WORKS
CLAYMONT, DELAWARE

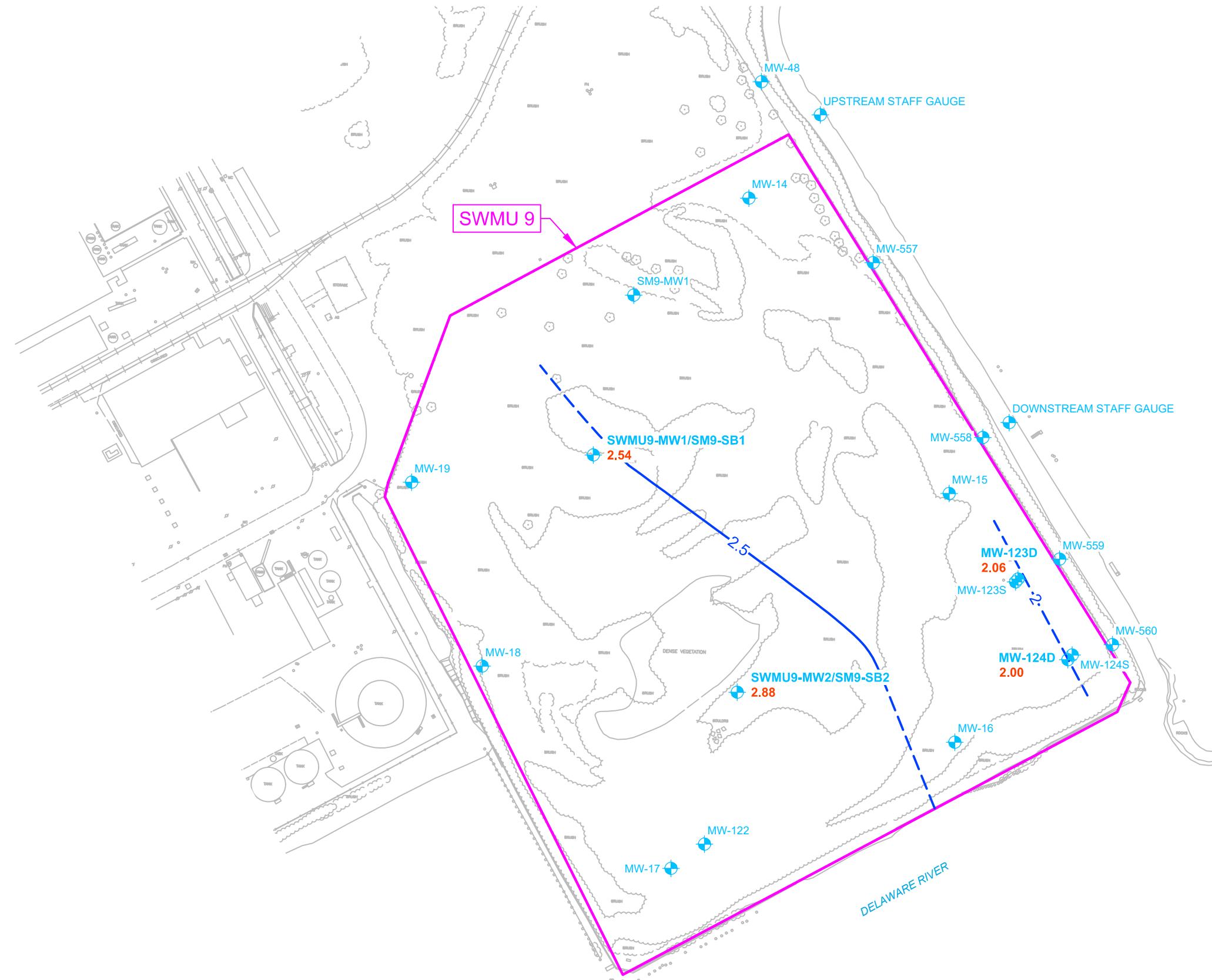
PROJECT

**SWMU 9 RFI PHASE IV
SUPPLEMENTAL WORK PLAN**

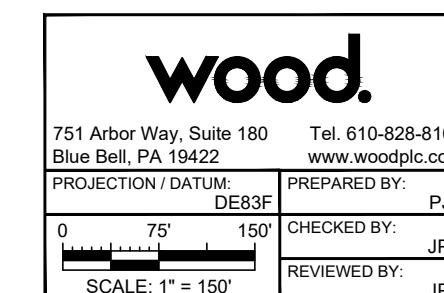
OBJECT NO.:	7772190022
VISION NO.:	0
DATE:	JANUARY 2020

E
WATER LEVEL ELEVATIONS - SHALLOW WELLS
DECEMBER 06, 2019

3a

**LEGEND**

- APPROXIMATE SWMU 9 BOUNDARY
- MEASURING POINT AND WATER LEVEL ELEVATION
- LINE OF EQUAL ELEVATION (DASHED WHERE SUSPECT)
- GROUNDWATER ELEVATION (FT AMSL)
- CORRECTED WATER ELEVATION; WELL CONTAINS FREE PRODUCT



CLIENT

Honeywell
DELAWARE VALLEY WORKS
CLAYMONT, DELAWARE

PROJECT

**SWMU 9 RFI PHASE IV
SUPPLEMENTAL WORK PLAN**

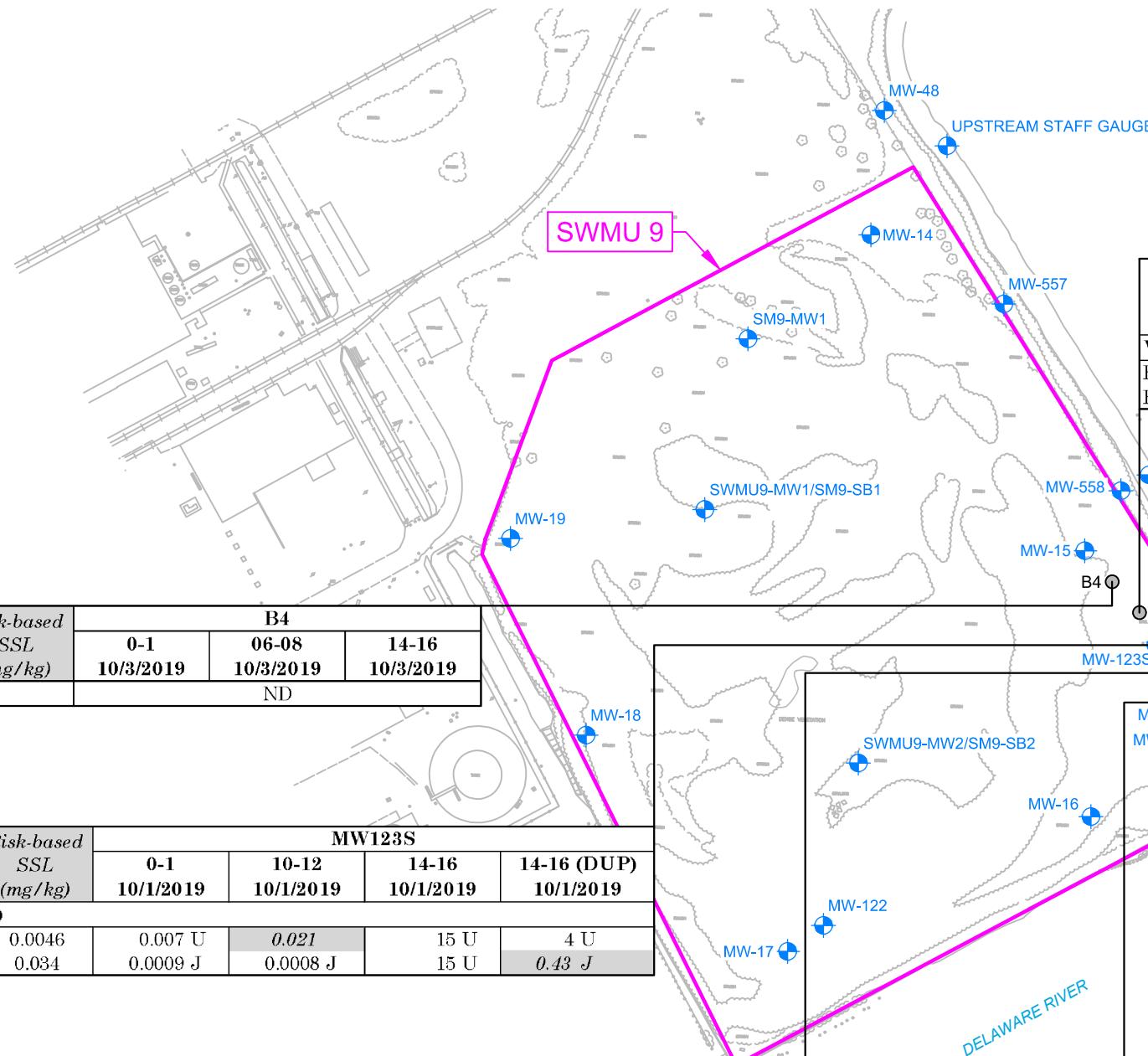
PROJECT NO.: 7772190022

REVISION NO.: 0

DATE: JANUARY 2020

FIGURE NO.: 3b

TITLE
**WATER LEVEL ELEVATIONS - DEEP WELLS
DECEMBER 06, 2019**



Field Sample ID	Industrial Soil Depth (ft)	Risk-based Screening Sample Date	B4		
			0-1	06-08	14-16
		10/3/2019	10/3/2019	10/3/2019	
Volatile Organic Compounds (mg/kg)					
			ND		

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Screening Sample Date	MW123S			
			0-1	10-12	14-16	14-16 (DUP)
		10/1/2019	10/1/2019	10/1/2019	10/1/2019	10/1/2019
Volatile Organic Compounds (mg/kg)						
Benzene	5.1	0.0046	0.007 U	0.021	15 U	4 U
Ethylbenzene	25	0.034	0.0009 J	0.0008 J	15 U	0.43 J

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Screening Sample Date	B2		
			0-1	08-10	14-16
		10/1/2019	10/1/2019	10/1/2019	
Volatile Organic Compounds (mg/kg)					
			ND		

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Screening Sample Date	B3			
			0-1	08-10	14-16	14-16 (DUP)
		10/3/2019	10/3/2019	10/3/2019	10/3/2019	10/3/2019
Volatile Organic Compounds (mg/kg)						
Benzene	5.1	0.0046	0.0008 J	0.007 U	8.8 U	0.015
Ethylbenzene	25	0.034	0.005 U	0.007 U	8.8 U	0.058

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Screening Sample Date	MW124S		
			0-1	10-12	14-16
		9/30/2019	9/30/2019	9/30/2019	
Volatile Organic Compounds (mg/kg)					
			ND		

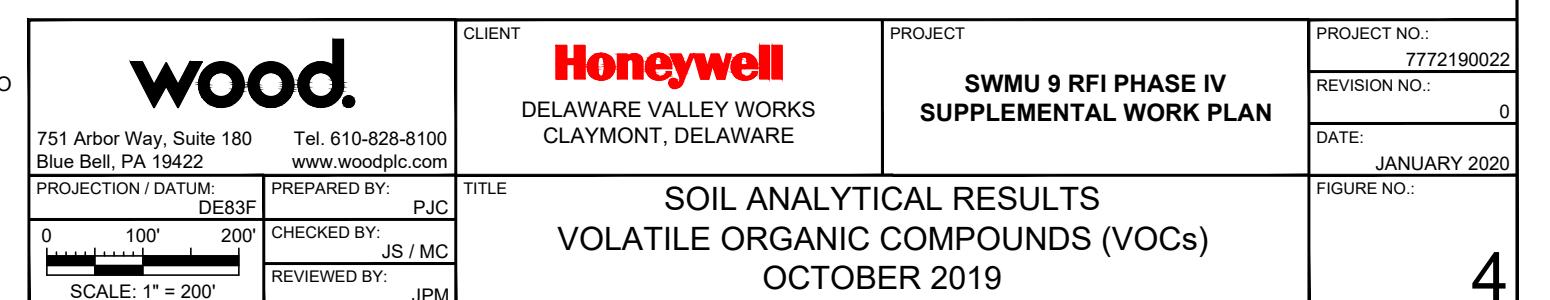
Field Sample ID	Industrial Soil Depth (ft)	Risk-based Screening Sample Date	B1		
			0-1	6-8	14-16
		10/1/2019	10/1/2019	10/1/2019	
Volatile Organic Compounds (mg/kg)					
Chlorobenzene	1300	1.06	0.015	0.065	1.7 J
Chloroform	1.4	0.00122	0.003 J	0.0008 J	10 U
Trichloroethene	6	0.0036	0.003 J	0.005	10 U

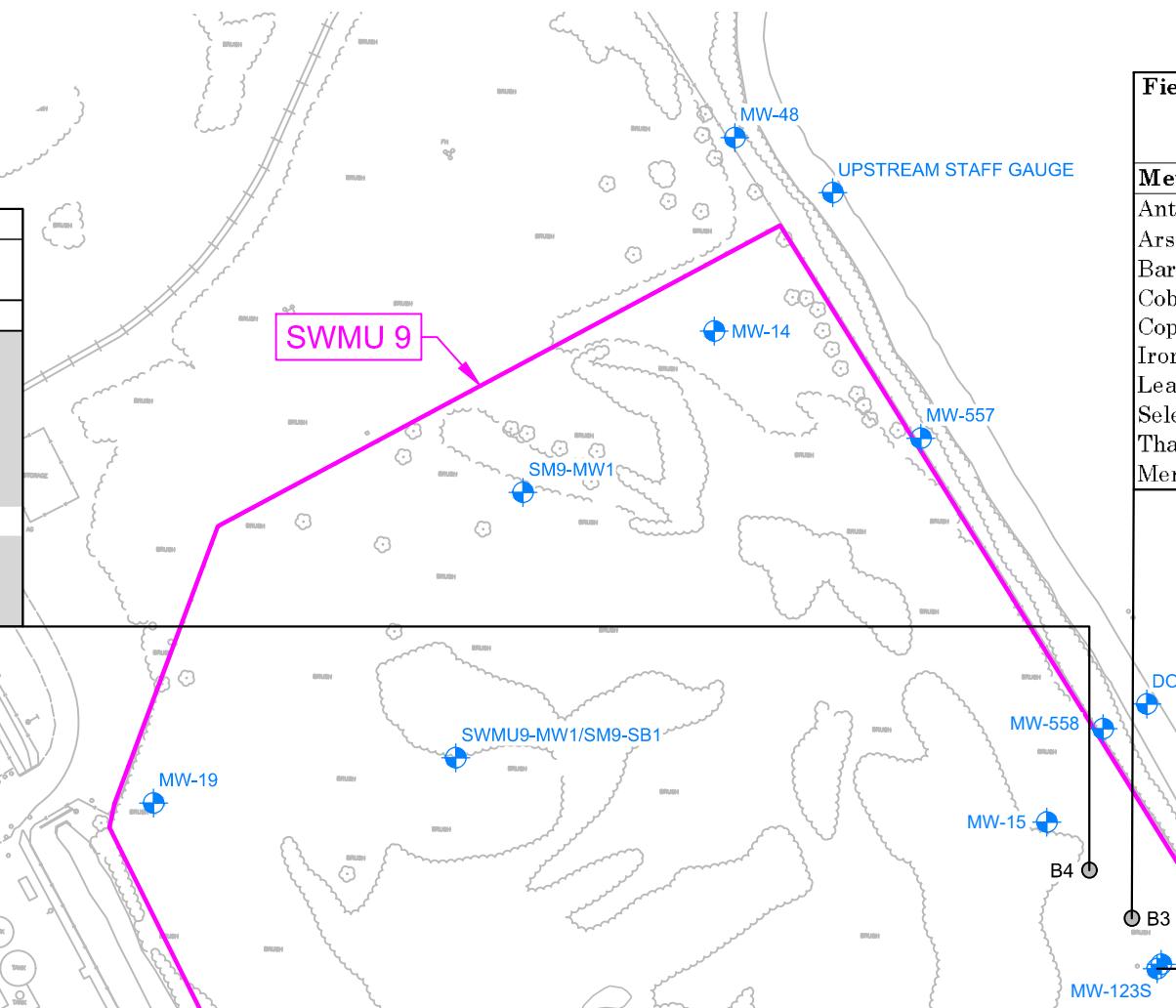
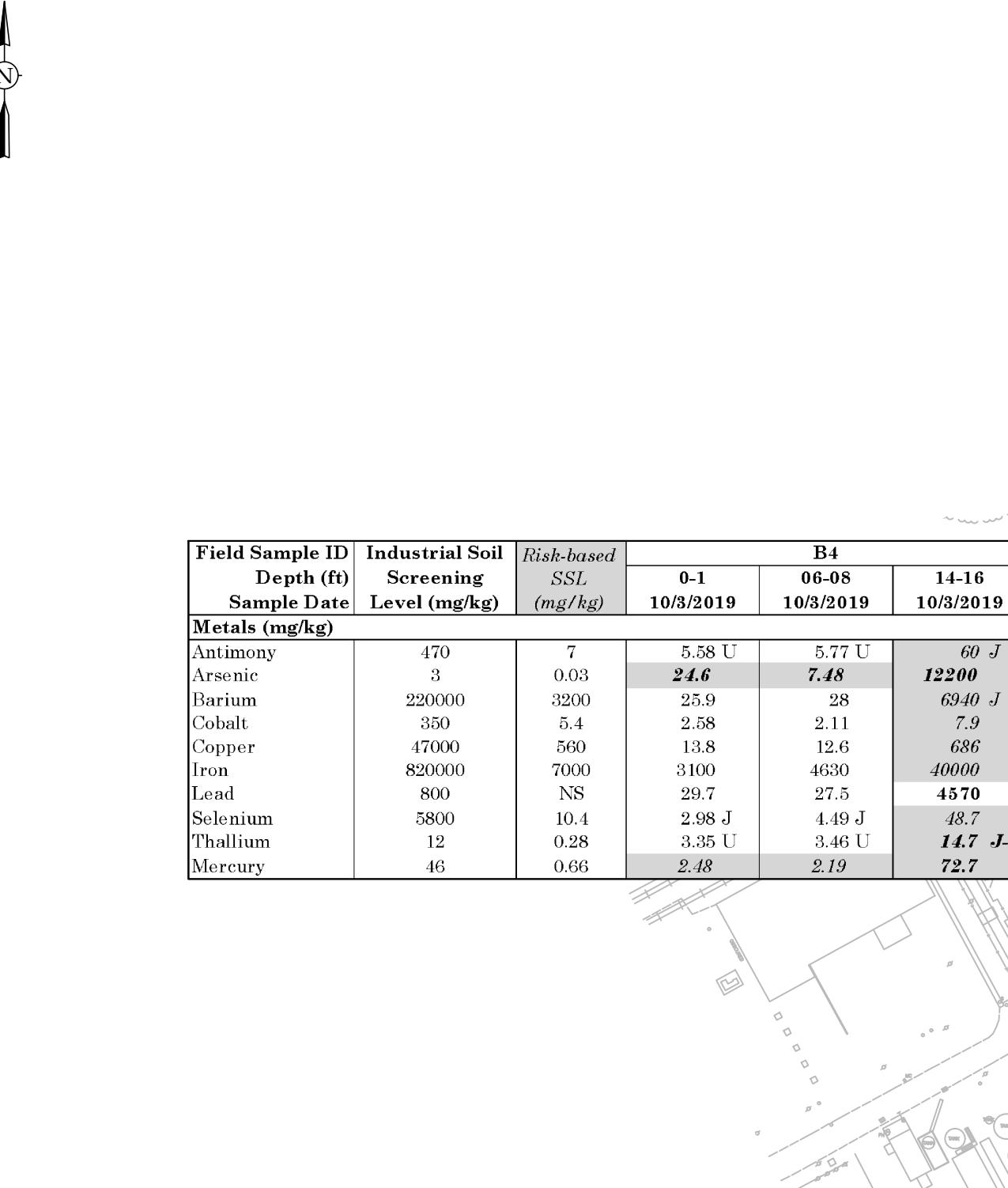
LEGEND

- APPROXIMATE SWMU 9 BOUNDARY
- EXISTING MONITORING WELL
- EXISTING SOIL BORING

NOTES

- U = THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- J = RESULT IS LESS THAN THE LIMIT OF QUANTITATION (LOQ) OR REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE.
- BOLD VALUES** INDICATE AN EXCEEDANCE OF THE INDUSTRIAL SOIL SCREENING LEVEL (SSL) (USEPA, NOVEMBER 2019).
- ITALICIZED AND SHADED VALUES* INDICATE AN EXCEEDANCE OF THE RISK-BASED SSL, ASSUMING A DILUTION ATTENUATION FACTOR (DAF) OF 20 (USEPA, NOVEMBER 2019).
- mg/kg = MILLIGRAMS PER KILOGRAM.
- ND = NOT DETECTED.
- NS = NO STANDARD.





Field Sample ID	Industrial Soil Depth (ft)	Screening Sample Date	Risk-based SSL (mg/kg)	MW123S			
				0-1 10/1/2019	10-12 10/1/2019	14-16 10/1/2019	14-16 (DUP) 10/1/2019
Metals (mg/kg)							
Antimony	470	7	3.62 J	3.46 J	126 J	115 J	
Arsenic	3	0.03	46.6	14.4	9200 J	301 J	
Cobalt	350	5.4	12.9	10.8	7.11 J	7.68	
Copper	47000	560	72.8	37.4	681 J	119 J	
Iron	820000	7000	17600	18400	24900	20500	
Lead	800	NS	126	64.7	14000 J	477 J	
Selenium	5800	10.4	7.64	7.9	208 J	27.2 J	
Thallium	12	0.28	0.28	1.18 J	3.51 U	51.3 J	3.7 U
Mercury	46	0.66	0.846	0.502	106 J	4.69 J	

Field Sample ID	Industrial Soil Depth (ft)	Screening Sample Date	Risk-based SSL (mg/kg)	B2		
				0-1 10/1/2019	08-10 10/1/2019	14-16 10/1/2019
Metals (mg/kg)						
Antimony	470	7	5.21 U	7.38 U	23.2 J	
Arsenic	3	0.03	48	35.4	1630 J	
Barium	220000	3200	87.6	99.8	671 J	
Cobalt	350	5.4	24.3	10.1	32.3 J	
Iron	820000	7000	24400	12200	64100 J	
Lead	800	NS	173	68.7	1950 J	
Selenium	5800	10.4	10.3	8.4	116 J	
Thallium	12	0.28	3.13 U	4.43 U	4.76 J	
Mercury	46	0.66	1.05	0.739	29.4	

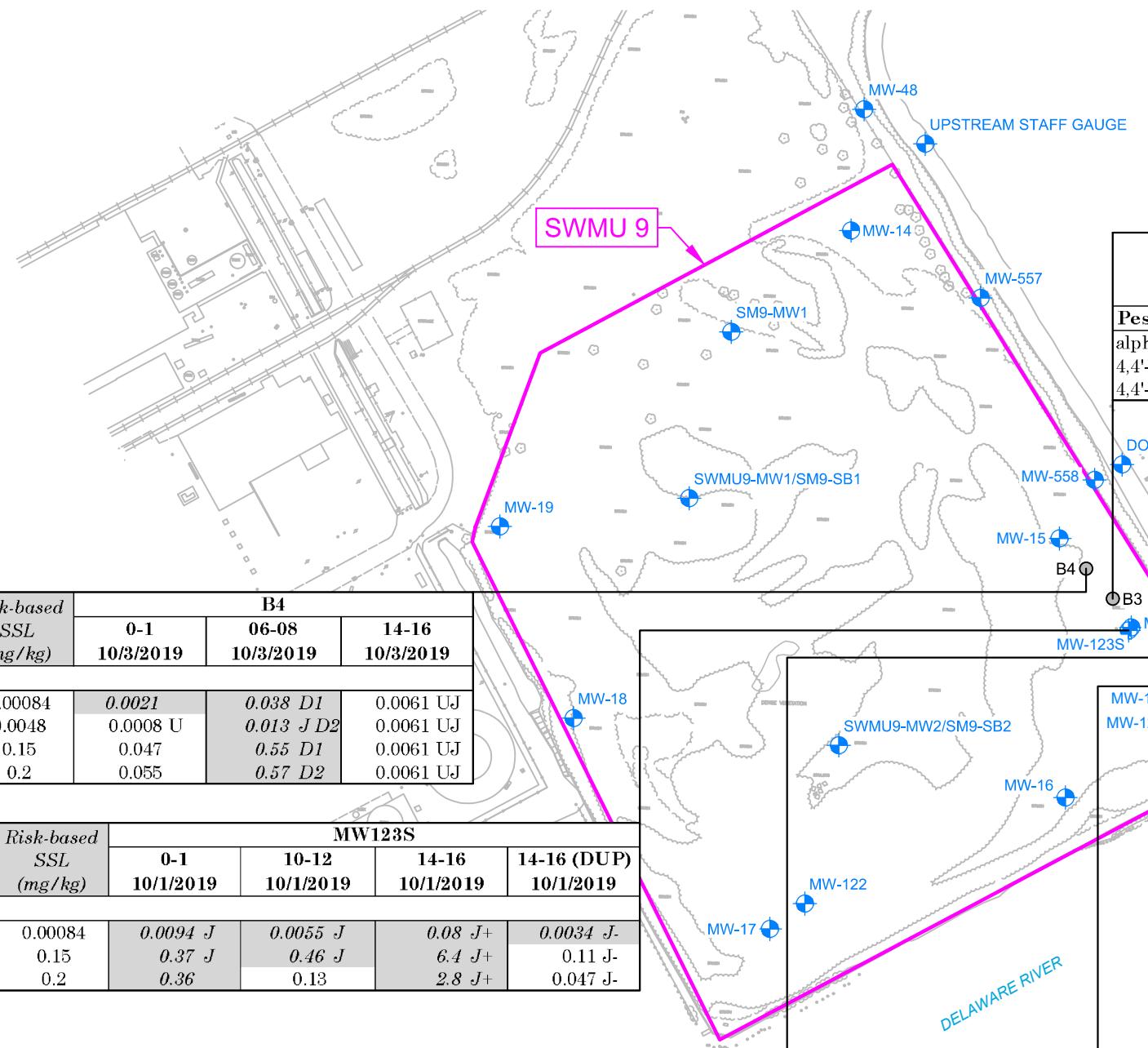
Field Sample ID	Industrial Soil Depth (ft)	Screening Sample Date	Risk-based SSL (mg/kg)	B1		
				0-1 10/1/2019	6-8 10/1/2019	14-16 10/1/2019
Metals (mg/kg)						
Antimony	470	7	4.46 J	3.48 J	12.5 J	
Arsenic	3	0.03	168	146	1050	
Cobalt	350	5.4	23.8	67.9	32.6	
Iron	820000	7000	43700	62100	51700	
Lead	800	NS	430	487	1370	
Selenium	5800	10.4	13.7	11.1	72.1	
Thallium	12	0.28	8.15	2.41 U	18.3 U	
Mercury	46	0.66	4.73	1.51	13.5	

Field Sample ID	Industrial Soil Depth (ft)	Screening Sample Date	Risk-based SSL (mg/kg)	MW124S		
				0-1 9/30/2019	10-12 9/30/2019	14-16 9/30/2019
Metals (mg/kg)						
Antimony	470	7	4.85 U	6.23 U	12.2	
Arsenic	3	0.03	119	3.74 U	14100	
Barium	220000	3200	185	110	5240	
Cobalt	350	5.4	14.3	0.653	19.9	
Iron	820000	7000	47000	758	34800	
Lead	800	NS	235	138	2000	
Selenium	5800	10.4	25.7	6.23 U	99.6	
Thallium	12	0.28	2.91 U	3.74 U	2.05 J	
Mercury	46	0.66	1.23	0.19	16.8	

LEGEND
■ APPROXIMATE SWMU 9 BOUNDARY
● EXISTING MONITORING WELL
● EXISTING SOIL BORING

NOTES
 1. U = THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 2. J = INDICATES THE ANALYTE WAS ANALYZED FOR BUT NOT DETECTED WITH AN ESTIMATED DETECTION LIMIT.
 3. J = RESULT IS LESS THAN THE LIMIT OF QUANTITATION (LOQ) OR REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE.
 4. J = RESULT IS LESS THAN THE LIMIT OF QUANTITATION (LOQ) OR REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LEVEL (MDL) OR DETECTION LEVEL (DL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE WITH A LOW BIAS.
 5. **BOLD VALUES** INDICATE AN EXCEDENCE OF THE INDUSTRIAL SOIL SCREENING LEVEL (SSL) (USEPA, NOVEMBER 2019).
 6. *ITALICIZED AND SHADED VALUES* INDICATE AN EXCEDENCE OF THE RISK-BASED SSL, ASSUMING A DILUTION ATTENUATION FACTOR (DAF) OF 20 (USEPA, NOVEMBER 2019).
 7. mg/kg = MILLIGRAMS PER KILOGRAM.
 8. NS = NO STANDARD.

PROJECTION / DATUM: DE83F	PREPARED BY: PJC	CLIENT: Honeywell DELAWARE VALLEY WORKS CLAYMONT, DELAWARE	PROJECT: SWMU 9 RFI PHASE IV SUPPLEMENTAL WORK PLAN	PROJECT NO.: 7772190022
0 75' 150'	CHECKED BY: JS / MC	TITLE: SOIL ANALYTICAL RESULTS METALS OCTOBER 2019	REVISION NO.: C	



Field Sample ID	Industrial Soil Depth (ft)	Risk-based Sample Date	B4		
			0-1	06-08	14-16
Pesticides (mg/kg)	Depth (ft)	Screening Level (mg/kg)	10/3/2019	10/3/2019	10/3/2019
alpha-BHC	0.36	0.00084	0.0021	0.038 D1	0.0061 UJ
gamma-BHC (Lindane)	2.5	0.0048	0.0008 U	0.013 J D2	0.0061 UJ
4,4'-DDD	9.6	0.15	0.047	0.55 D1	0.0061 UJ
4,4'-DDE	9.3	0.2	0.055	0.57 D2	0.0061 UJ

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Sample Date	MW123S			
			0-1	10-12	14-16	14-16 (DUP)
Pesticides (mg/kg)	Depth (ft)	Screening Level (mg/kg)	10/1/2019	10/1/2019	10/1/2019	10/1/2019
alpha-BHC	0.36	0.00084	0.0094 J	0.0055 J	0.08 J+	0.0034 J-
4,4'-DDD	9.6	0.15	0.37 J	0.46 J	6.4 J+	0.11 J-
4,4'-DDE	9.3	0.2	0.36	0.13	2.8 J+	0.047 J-

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Sample Date	B2		
			0-1	08-10	14-16
Pesticides (mg/kg)	Depth (ft)	Screening Level (mg/kg)	10/1/2019	10/1/2019	10/1/2019
alpha-BHC	0.36	0.00084	0.008 J	0.0025 J	0.0071 J-
4,4'-DDD	9.6	0.15	1.6 J	2.1 J	4.7 J
4,4'-DDE	9.3	0.2	1.3	1	1.5
4,4'-DDT	8.5	1.54	3.3	1.5	0.95

NOTES

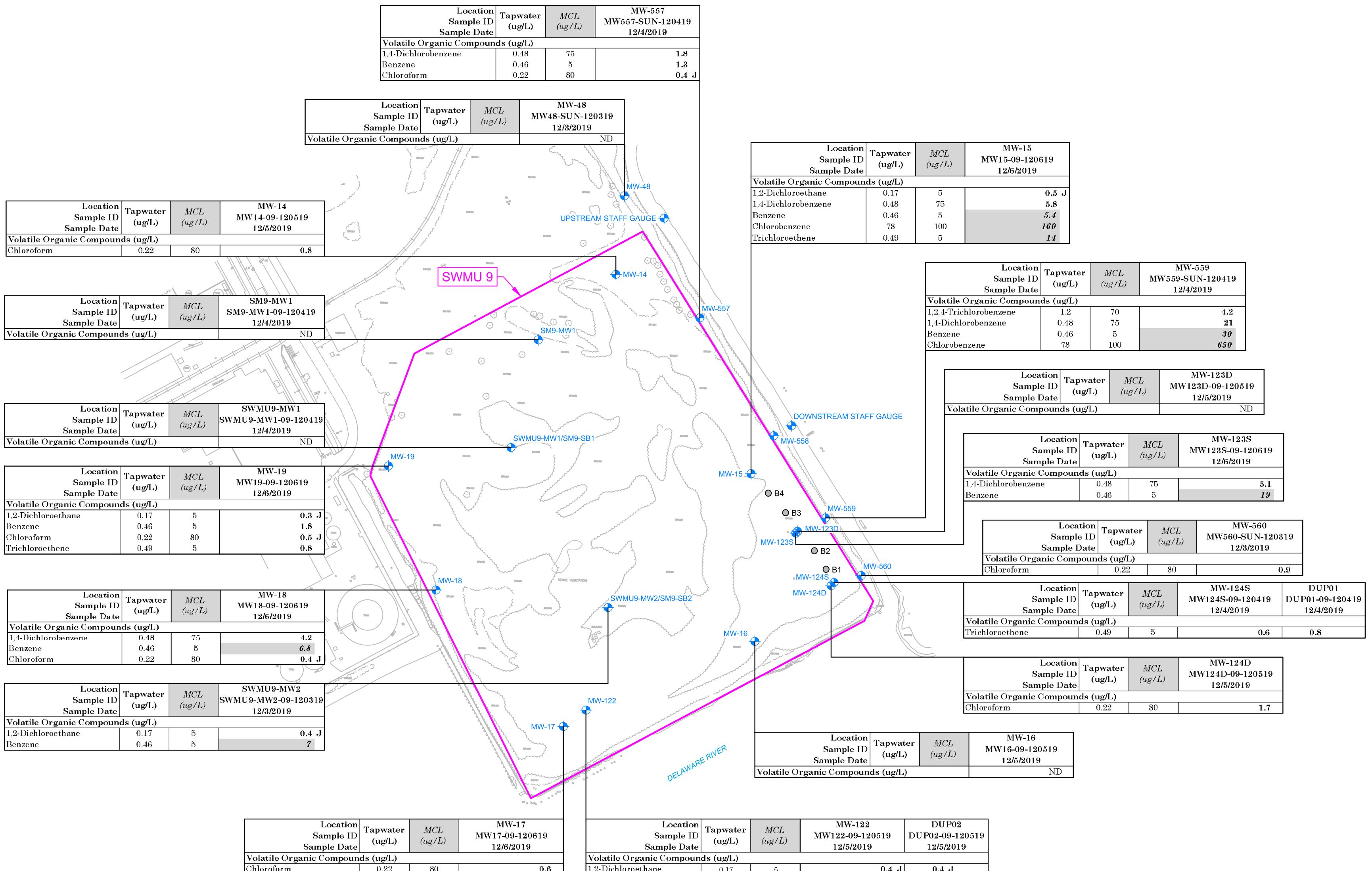
1. U = THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
2. UJ = INDICATES THE ANALYTE WAS ANALYZED FOR BUT NOT DETECTED WITH AN ESTIMATED DETECTION LIMIT.
3. J = RESULT IS LESS THAN THE LIMIT OF QUANTITATION (LOQ) OR REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE
4. J- = RESULT IS LESS THAN THE LIMIT OF QUANTITATION (LOQ) OR REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LEVEL (MDL) OR DETECTION LEVEL (DL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE WITH A LOW BIAS.
5. J+ = RESULT IS LESS THAN THE LIMIT OF QUANTITATION (LOQ) OR REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LEVEL (MDL) OR DETECTION LEVEL (DL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE WITH A HIGH BIAS.
6. **BOLD VALUES** INDICATE AN EXCEEDANCE OF THE INDUSTRIAL SOIL SCREENING LEVEL (SSL) (USEPA, NOVEMBER 2019).
7. **ITALICIZED AND SHADDED VALUES** INDICATE AN EXCEEDANCE OF THE RISK-BASED SSL, ASSUMING A DILUTION ATTENUATION FACTOR (DAF) OF 20 (NOVEMBER 2019).
8. mg/kg = MILLIGRAMS PER KILOGRAM.
9. D1 = FOR DUAL ANALYSES, THE RESULT IS REPORTED FROM COLUMN 1.
10. D2 = FOR DUAL ANALYSES, THE RESULT IS REPORTED FROM COLUMN 2.
11. NS = NO STANDARD.

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Sample Date	B3			
			0-1	08-10	14-16	14-16 (DUP)
Pesticides (mg/kg)	SSL (mg/kg)	10/3/2019	10/3/2019	10/3/2019	10/3/2019	10/3/2019
alpha-BHC	0.36	0.00084	0.00073 U	0.0081	0.0056 U	0.0056 U
4,4'-DDD	9.6	0.15	0.047	0.61	0.2 J	0.24 J
4,4'-DDE	9.3	0.2	0.037	0.077 J	0.17 J	0.44

Field Sample ID	Industrial Soil Depth (ft)	Risk-based Sample Date	MW124S		
			0-1	10-12	14-16
Pesticides (mg/kg)	Depth (ft)	Screening Level (mg/kg)	9/30/2019	9/30/2019	9/30/2019
alpha-BHC	0.36	0.00084	0.0042	0.0009 UJ	0.0051 U
beta-BHC	1.3	0.003	0.013	0.0009 UJ	0.0051 U
4,4'-DDD	9.6	0.15	0.15	0.29 J	0.0048 J
4,4'-DDE	9.3	0.2	0.19	0.18 J-	0.67 J+

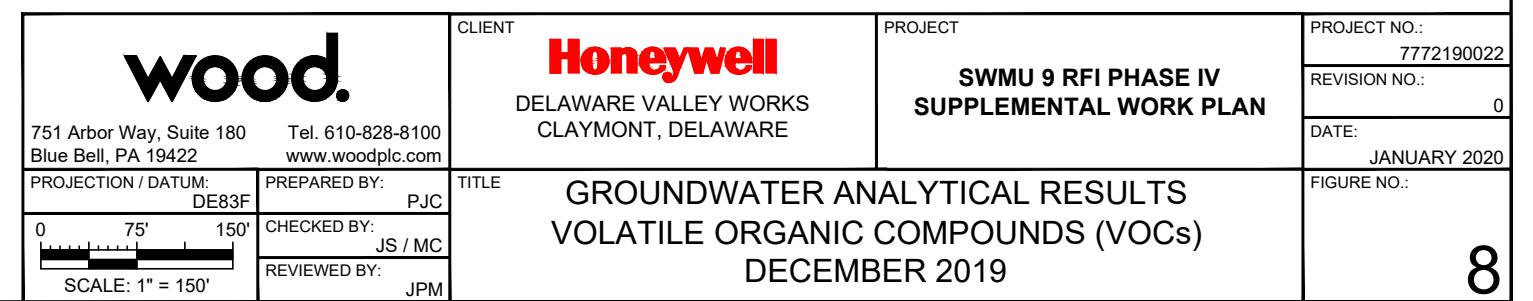
Field Sample ID	Industrial Soil Depth (ft)	Risk-based Sample Date	B1		
			0-1	6-8	14-16
Pesticides (mg/kg)	Depth (ft)	Screening Level (mg/kg)	10/1/2019	10/1/2019	10/1/2019
alpha-BHC	0.36	0.00084	0.069	0.026	0.0064 UJ
beta-BHC	1.3	0.003	0.08	0.0038 U	0.0064 UJ
gamma-BHC (Lindane)	2.5	0.0048	0.03 J	0.0038 U	0.0064 UJ
4,4'-DDD	9.6	0.15	7.8 J	10 J	20 J-
4,4'-DDE	9.3	0.2	2	2.4	18 J-
4,4'-DDT	8.5	1.54	1.54	14	5.1

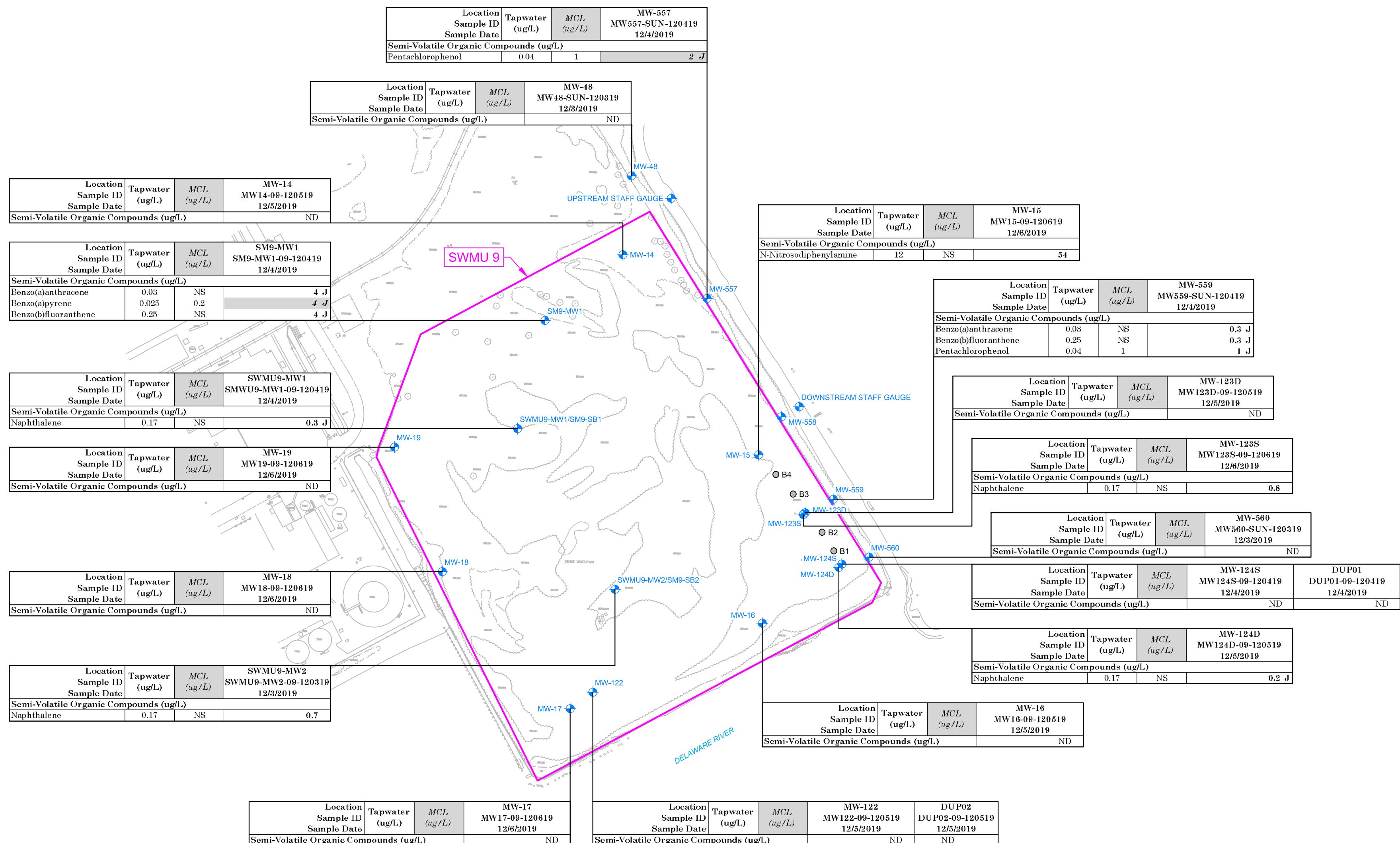
wood. 751 Arbor Way, Suite 180 Blue Bell, PA 19422	Tel. 610-828-8100 www.woodplc.com	CLIENT Honeywell DELAWARE VALLEY WORKS CLAYMONT, DELAWARE	PROJECT SWMU 9 RFI PHASE IV SUPPLEMENTAL WORK PLAN	FIGURE NO.: 7772190022
PROJECTION / DATUM: DE83F	PREPARED BY: PJC	TITLE SOIL ANALYTICAL RESULTS PESTICIDES OCTOBER 2019		
0 100' 200'	CHECKED BY: JS / MC	FIGURE NO.: 0		
SCALE: 1" = 200'	REVIEWED BY: JPM	DATE: JANUARY 2020		


LEGEND

APPROXIMATE SWMU 9 BOUNDARY
EXISTING MONITORING WELL
EXISTING SOIL BORING

- NOTES**
1. J = RESULT IS LESS THAN THE REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE.
 2. **BOLD VALUES** INDICATE AN EXCEDANCE OF TAPWATER SCREENING LEVELS.
 3. **ITALICIZED AND SHADED VALUES** INDICATE AN EXCEDANCE OF THE MAXIMUM CONTAMINANT LEVEL (MCL).
 4. ug/L = MICROGRAMS PER LITER.
 5. TAPWATER AND MAXIMUM CONTAMINANT LEVELS (MCLs) FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) 2019 REGIONAL SCREENING LEVELS (RSLS).
 6. ND = NOT DETECTED.
 7. NS = NO STANDARD.
 8. MW-558: LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) OBSERVED IN WELL; NO SAMPLE COLLECTED.





NOTES

- NOTES**

 1. J = RESULT IS LESS THAN THE REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE.
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 6. ND = NOT DETECTED.
 7. NS = NO STANDARD.
 8. MW-558: LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) OBSERVED IN WELL; NO SAMPLE COLLECTED.

The logo consists of the word "wood." in a lowercase, bold, sans-serif font. The letter "o" has a vertical line extending from its top through the center of the letter, and the letter "d" has a similar vertical line extending from its bottom through the center.

CLIENT
Honeywell
DELAWARE VALLEY WORKS
CLAYMONT, DELAWARE

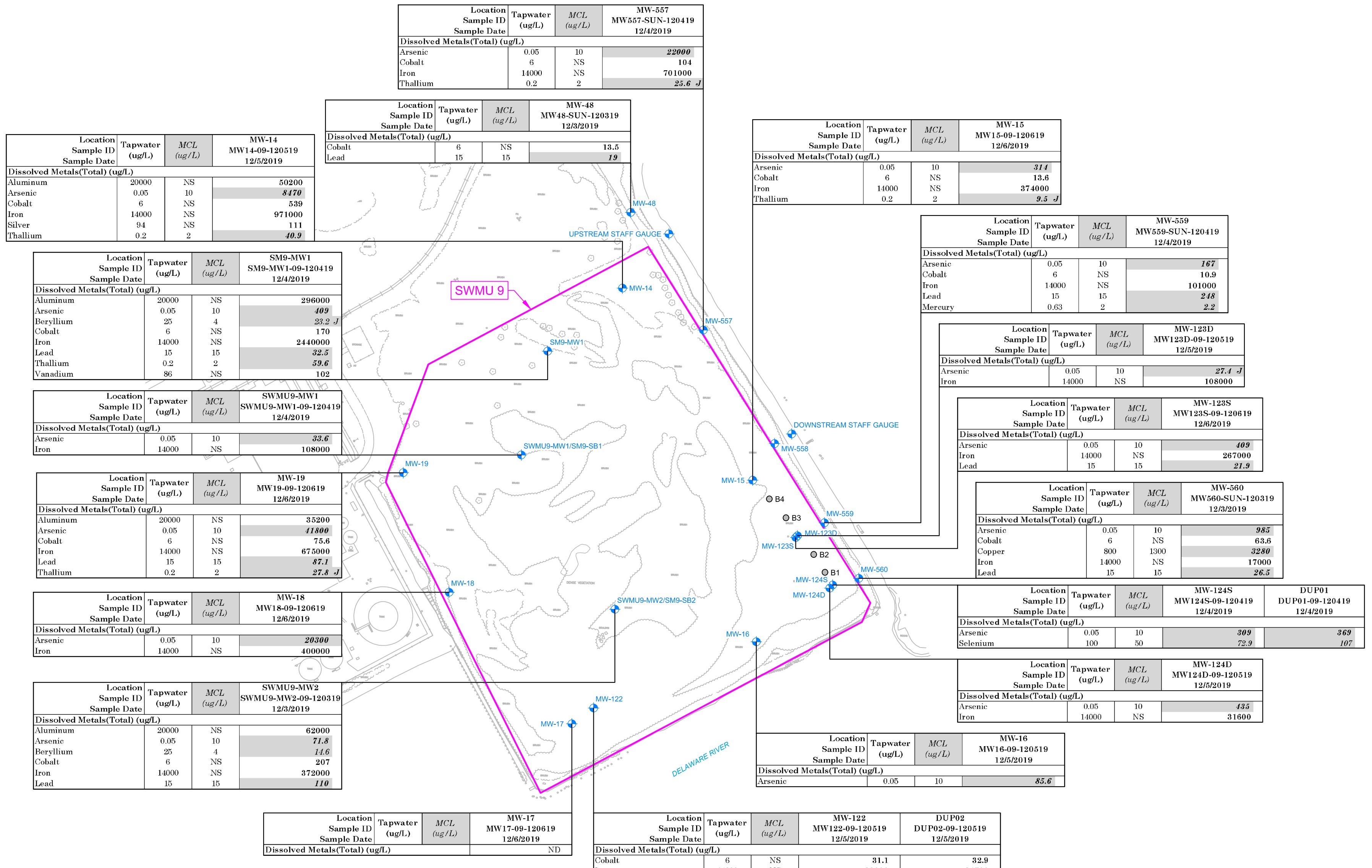
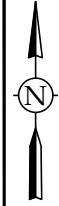
PROJECT

**SWMU 9 RFI PHASE IV
SUPPLEMENTAL WORK PLAN**

**ANALYTICAL RESULTS
NIC COMPOUNDS (SVOCs)
MAY 2019**

PROJECT NO.:	7772190022
REVISION NO.:	0
DATE:	JANUARY 2000

JANUARY 2020
FIGURE NO.:
9



LEGEND

- APPROXIMATE SWMU 9 BOUNDARY
- EXISTING MONITORING WELL
- EXISTING SOIL BORING

NOTES

- J = RESULT IS LESS THAN THE REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL), AND THE CONCENTRATION IS AN APPROXIMATE VALUE.
- BOLD** VALUES INDICATE AN EXCEDANCE OF TAPWATER SCREENING LEVELS.
- ITALICIZED AND SHADDED** VALUES INDICATE AN EXCEDANCE OF THE MAXIMUM CONTAMINANT LEVEL (MCL).
- ug/L = MICROGRAMS PER LITER
- TAPWATER AND MAXIMUM CONTAMINANT LEVELS (MCLs) FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) 2019 REGIONAL SCREENING LEVELS (RSLS).
- ND = NOT DETECTED.
- NS = NO STANDARD.
- MW-558: LIGHT NON-AQUEOUS PHASE LIQUID (LNPL) OBSERVED IN WELL; NO SAMPLE COLLECTED.

wood.
751 Arbor Way, Suite 180 Tel. 610-828-8100 www.woodplc.com

Honeywell
DELAWARE VALLEY WORKS CLAYMONT, DELAWARE

PROJECT
SWMU 9 RFI PHASE IV SUPPLEMENTAL WORK PLAN

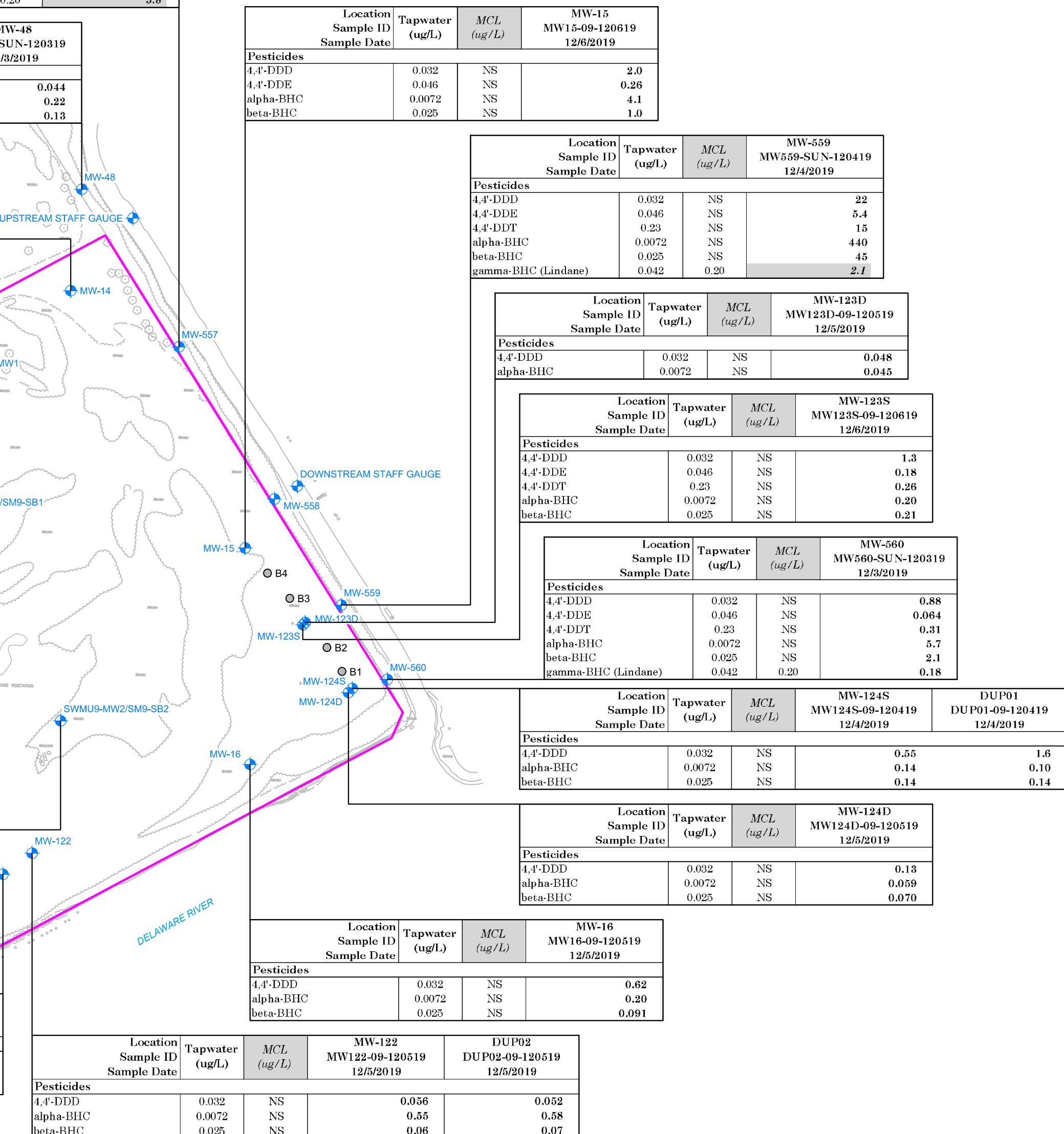
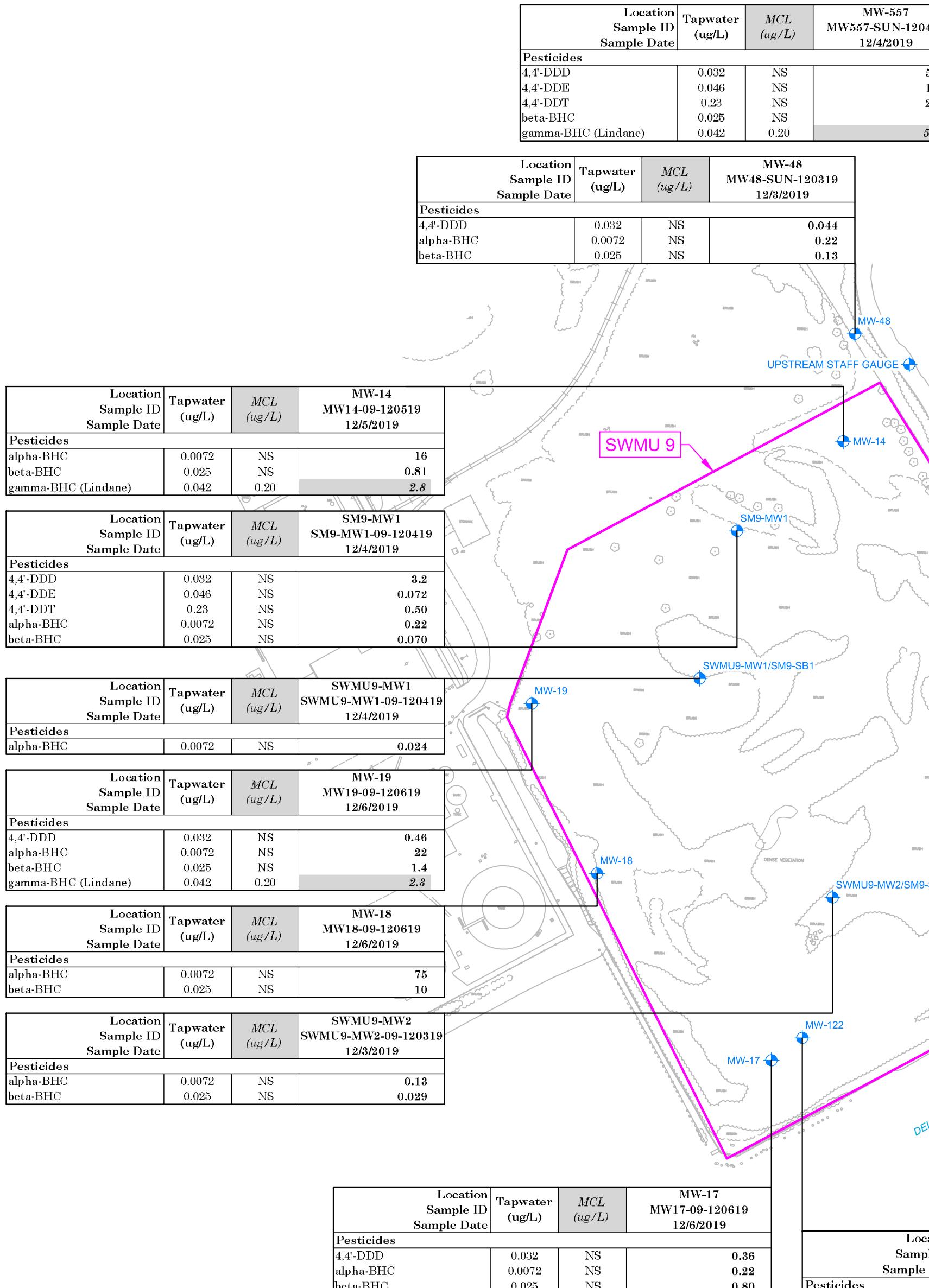
CLIENT

PROJECT NO.: 7772190022
REVISION NO.: C
DATE: JANUARY 2020

TITLE
GROUNDWATER ANALYTICAL RESULTS METALS DECEMBER 2019

PREPARED BY: PJC
CHECKED BY: JS / MC
REVIEWED BY: JPM

SCALE: 1" = 150'



LEGEND

- APPROXIMATE SWMU 9 BOUNDARY
- EXISTING MONITORING WELL
- EXISTING SOIL BORING

NOTES

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- 4, ug/L = MICROGRAMS PER LITER.
- TAPWATER AND MAXIMUM CONTAMINANT LEVELS (MCLs) FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) 2019 REGIONAL SCREENING LEVELS (RSLS).
- NS = NO STANDARD.
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Blue Bell, PA 19422 www.woodplc.com

CLIENT Honeywell
DELAWARE VALLEY WORKS CLAYMONT, DELAWARE

PROJECT SWMU 9 RFI PHASE IV SUPPLEMENTAL WORK PLAN

PROJECTION / DATUM: DE83F **PREPARED BY:** PJC
CHECKED BY: JS / MC
REVIEWED BY: JPM

TITLE GROUNDWATER ANALYTICAL RESULTS PESTICIDES DECEMBER 2019

PROJECT NO.: 7772190022
REVISION NO.: C
DATE: JANUARY 2020
FIGURE NO.: 11

ATTACHMENT A
SOIL LABORATORY ANALYTICAL RESULTS

ATTACHMENT B
GROUNDWATER LABORATORY ANALYTICAL RESULTS